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No. 453.

## United States Department of Agriculture,

DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., January 31, 1903.

### MONTHLY LIST OF PUBLICATIONS.

[JANUARY, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau.

Publications for free distribution may be obtained on application to the Secretary of Agriculture, Washington, D. C. Free publications are not distributed by the Superintendent of Documents.

The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

#### NEW PUBLICATIONS.

Annual Reports of the Department of Agriculture for the Fiscal Year Ended June 30, 1902. Report of the Secretary of Agriculture. Departmental Reports. Pp. cxxiv, 1-402.

Congressional publication; contains the report of the Secretary of Agriculture to the President, November 29, 1902, and reports of the various Bureaus, Divisions, and Offices for the fiscal year ended June 30, 1902.

Fruits and Fruit Products: Chemical and Microscopical Examination. Prepared under the direction of W. D. Bigelow, Chief of Food Laboratory, by L. S. Munson, L. M. Tolman, and Burton J. Howard. Pp. 114, pls. 12. (Bulletin No. 66, Bureau of Chemistry.) Price 20 cents.

The Changa, or Mole Cricket (*Scapteriscus didactylus* Latr.) in Porto Rico. By O. W. Barrett, Entomologist and Botanist, Porto Rico Agricultural Experiment Station. Under the Supervision of Office of Experiment Stations, U. S. Department of Agriculture. Pp. 20, fig. 1. (Bulletin No. 2, Porto Rico Agricultural Experiment Station.) Price 5 cents.

Description, life history, habits, remedies, and natural enemies of an insect which causes much damage in Porto Rico.

Experiments on the Metabolism of Nitrogen, Sulphur, and Phosphorus in the Human Organism. By H. C. Sherman, Ph. D., Instructor in Analytical Chemistry, Columbia University. Pp. 47, figs. 3. (Bulletin No. 121, Office of Experiment Stations.) Price 5 cents.

Experiment Station Record. Vol. XIV, No. 5. E. W. Allen, Ph. D., Editor. Pp. x, 413-516.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers), beginning with Volume VIII, at \$1, payable in advance.



List of American Varieties of Vegetables for the Years 1901 and 1902. By W. W. Tracy, Jr., Assistant, Botanical Investigations and Experiments. Pp. 402. (Bulletin No. 21, Bureau of Plant Industry.) Price 35 cents.

The Mango in Porto Rico. By G. N. Collins, Assistant Botanist in Tropical Agriculture, Botanical Investigations and Experiments. Pp. 38, pls. 15. (Bulletin No. 28, Bureau of Plant Industry.) Price 15 cents.

Discusses the possibilities and requirements of the mango in that island.

The Effect of Black Rot on Turnips: A Series of Photomicrographs, Accompanied by an Explanatory Text. By Erwin F. Smith, Pathologist, Laboratory of Plant Pathology, Vegetable, Pathological, and Physiological Investigations. Pp. 20, pls. 13. (Bulletin No. 29, Bureau of Plant Industry.) Price 15 cents.

Silkworm Food Plants: Cultivation and Propagation. By George W. Oliver, Expert, Seed and Plant Introduction and Distribution. Pp. 20, frontispiece, pls. 12. (Bulletin No. 34, Bureau of Plant Industry.) Price 15 cents.

Proceedings of the North Carolina Good Roads Convention, Held at Raleigh, February 12 and 13, 1902. Compiled by J. A. Holmes, Special Agent, Southern Division. Pp. 72, pls. 5. (Bulletin No. 24, Office of Public Road Inquiries.) Price 10 cents.

Crop Reporter. Vol. 4, No. 8. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

Crop Reporter. Vol. 4, No. 9. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

A three-column quarto publication devoted to agricultural topics.

Preliminary Crop and Soil Data for the Cooperative Study of Available Plant Food. By C. C. Moore, Chief of Soil and Fertilizer Laboratory. Pp. 9. (Circular No. 11, Bureau of Chemistry.)

Monthly List of Publications. December, 1902. Pp. 4. (No. 452, Division of Publications.)

List of Bulletins and Circulars Issued by the U. S. Department of Agriculture and Available for Free Distribution. Corrected to January 1, 1903. (No. 247, eighth edition, Division of Publications.)

#### REPRINTS.

Bulletin No. 21, Bureau of Animal Industry, revised. Sheep Scab: Its Nature and Treatment. Price 15 cents.

Bulletin No. 16, Division of Botany, revised edition. American Ginseng: Its Commercial History, Protection, and Cultivation. Price 5 cents.

Bulletin No. 70, Bureau of Chemistry. Manufacture of Table Sirups from Sugar Cane. Price 10 cents.

Bulletin No. 69, Office of Experiment Stations, revised edition. Experiments on the Metabolism of Matter and Energy in the Human body. Price 10 cents.

Bulletin No. 26, Section of Foreign Markets. Agricultural Imports of the United Kingdom, 1896-1900. Price 15 cents.



Bulletin No. 8, Office of Road Inquiry. Earth Roads: Hints on Their Construction and Repair. Price 5 cents.

Bulletin No. 9, Office of Road Inquiry. State Aid to Road Building in New Jersey. Price 5 cents.

Bulletin No. 17, Office of Road Inquiry. Historical and Technical Papers on Road Building in the United States. Price 5 cents.

Bulletin No. 21, Office of Public Road Inquiries. Proceedings of the International Good Roads Congress, Held at Buffalo, N. Y., September 16 to 21, 1901. Price 5 cents.

Bulletin No. 19, Division of Vegetable Physiology and Pathology. Stigmonose: A Disease of Carnations and Other Pinks. Price 5 cents.

Circular No. 30, revised edition, Division of Botany. List of Publications of the Division of Botany.

Circular No. 8, revised, Bureau of Chemistry. Official Method for Analysis of Tanning Materials.

Circular No. 20, second series, Division of Entomology. The Woolly Aphis of the Apple.

Circular No. 23, revised, Office of Experiment Stations. Key to Subject Index of Experiment Station Literature.

Some Problems of the Rural Common School. (From Yearbook of Department of Agriculture for 1901.)

Some Typical Reservoirs in the Rocky Mountain States. (From Yearbook of Department of Agriculture for 1901.)

The Angora Goat Industry. (From Eighteenth Annual Report, Bureau of Animal Industry.)

The Southern Grain Louse. (From Bulletin No. 38, new series, Division of Entomology.)

Minutes of the Seventh Annual Meeting of the American Association of Farmers' Institute Workers. (From Bulletin No. 120, Office of Experiment Stations.)

Soil Survey of Harford County, Maryland. (From Field Operations, Bureau of Soils.)

#### FROM ANNUAL REPORTS, DEPARTMENT OF AGRICULTURE.

Report of the Appointment Clerk for 1902.

Report of the Chief of the Biological Survey for 1902.

Report of the Chemist for 1902.

Report of the Director of the Office of Experiment Stations for 1902.

Report of the Acting Entomologist for 1902.

Report of the Chief of the Section of Foreign Markets for 1902.

Report of the Forester for 1902.

Report of the Editor for 1902.

Report of the Chief of the Bureau of Plant Industry for 1902.

Report of the Office of Public Road Inquiries for 1902.



## FARMERS' BULLETINS.

Methods of Controlling the Boll Weevil. [Advice based on the work of 1902.] By W. D. Hunter, Special Field Agent. Pp. 16, figs. 2. (Farmers' Bulletin No. 163.)

Results of experimental field work with the Mexican cotton-boll weevil and methods of combating it.

## REPRINTS.

No. 57. Butter Making on the Farm.

No. 95. Good Roads for Farmers.

No. 113. The Apple and How to Grow it.

No. 136. Earth Roads.

No. 148. Celery Culture.

## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau requests and remittances should be directed to the Chief of that Bureau.]

Report of the Chief of the Weather Bureau, 1901-1902. By Willis L. Moore. Part I, Administrative Report. Parts II, III, IV, and V, Climatology. Part VI, Miscellaneous Tables and Reports. Pages xxvii, 342, charts 5. Quarto, cloth.

Instructions for Obtaining and Tabulating Records from Recording Instruments. Circular A, Instrument Division, Second Edition. By C. F. Marvin, Professor of Meteorology. Pp. 31, figs. 2. (W. B. No. 277.)

Monthly Weather Review, November, 1902. Vol. XXX, No. 11. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 511-551, charts 10, figs. 3. (W. B. 278.) Price 20 cents; \$2 per year.

Charts of the Weather Bureau—

Climate and Crop Bulletin (series of 1902) reporting temperature and rainfall with reference to their effect on crops. (No. 31, for the month of December, 1902.)

Snow and Ice Bulletin for Tuesdays, January 6, 13, 20, and 27. (These bulletins are issued weekly during the winter season, based upon data from regular Weather Bureau stations, supplemented by reports from selected voluntary observers.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

GEO. WM. HILL,  
*Editor and Chief.*

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*



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United States Department of Agriculture,  
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WASHINGTON, D. C., February 28, 1903.

MONTHLY LIST OF PUBLICATIONS.

[FEBRUARY, 1903.]

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NEW PUBLICATIONS.

Index-Catalogue of Medical and Veterinary Zoology. Part 2. [Authors: B to Buxton.] By Ch. Wardell Stiles, Ph. D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service, and Albert Hassall, M. R. C. V. S., Acting Assistant Zoologist of Bureau of Animal Industry. Pp. 47-198. (Bulletin No. 39, Bureau of Animal Industry.) Price 5 cents.

Organization Lists of the Agricultural Colleges and Experiment Stations in the United States. Pp. 96. (Bulletin No. 122, Office of Experiment Stations.) Price 10 cents.

Experiment Station Work. Vol. II, No. 1. Office of Experiment Stations. Pp. 28, figs. 3.

Experiment Station Record. Vol. XIV, No. 6. E. W. Allen, Ph. D., Editor. Pp. vii, 517-620. Price 10 cents.

The Record contains numerous abstracts of the publications of the Agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

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A Disease of the White Ash Caused by *Polyporous Fraxinophilus*. By Hermann von Schrenk, Special Agent in Charge of the Mississippi Valley Laboratory, Vegetable Pathological and Physiological Investigations. Pp. 20, pls. 5, fig. 1. (Bulletin No. 32, Bureau of Plant Industry.) Price 10 cents.

North American Species of *Leptochloa*. By A. S. Hitchcock, Assistant Agrostologist, in Charge of Cooperative Experiments, Grass and Forage Plant Investigations. Pp. 24, pls. 6, figs. 16. (Bulletin No. 33, Bureau of Plant Industry.) Price 15 cents.

This is a technical paper.



Recent Foreign Explorations, As Bearing on the Agricultural Development of the Southern States, By S. A. Knapp, Special Agent, Seed and Plant Introduction and Distribution. Pp. 44, pls. 6, figs. 2. (Bulletin No. 35, Bureau of Plant Industry.) Price 15 cents.

Message from the President of the United States transmitting a Report by the Secretary of Agriculture of the Operations of the Bureau of Animal Industry of that Department for the Fiscal Year ending June 30, 1902. Pp. 89. (Senate Doc. No. 105, 57th Cong., 2d sess.)

Crop Reporter. Vol. 4, No. 10. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

A three-column quarto publication devoted to agricultural topics.

Methods for the Investigation of Canceling Inks and Other Stamping Inks. By E. E. Ewell, Assistant Chief of Bureau. Pp. 8. (Circular No. 12, Bureau of Chemistry.)

A New Method of Turpentine Orchardling. By Gifford Pinchot, Forester. Pp. 8, figs. 3. (Circular No. 24, Bureau of Forestry.)

Monthly List of Publications. January, 1903. Pp. 4. (No. 453, Division of Publications.)

#### REPRINTS.

Bulletin No. 105, Office of Experiment Stations. Irrigation in the United States. Price 15 cents.

Bulletin No. 36, Bureau of Forestry. The Woodsman's Handbook. Part I.

Bulletin No. 23, Office of Public Road Inquiries. Road Conventions in the Southern States. Price 15 cents.

The Meadow Lark and Baltimore Oriole. (From Yearbook of Department of Agriculture for 1895.)

Influence of Environment in the Origination of Plant Varieties. (From Yearbook of Department of Agriculture for 1896.)

Mountain Roads. (From Yearbook of Department of Agriculture for 1900.)

Some Problems of the Rural Common School. (From Yearbook of Department of Agriculture for 1901.)

The Hemp Industry in the United States. (From Yearbook of Department of Agriculture for 1901.)

Report of the Chief of the Bureau of Animal Industry. (From Annual Reports, Department of Agriculture for 1902.)

Annual Report of the Alaska Agricultural Experiment Stations for 1901. (Reprint from Annual Report of the Office of Experiment Stations for 1901).

Secondary Courses in Agriculture. (Extract from the Seventh Report of the Committee on Methods of Teaching Agriculture of the Association of American Agricultural Colleges and Experiment Stations.)

Papers, Addresses, and Discussions. (Reprinted from Bulletin No. 120, Office of Experiment Stations. Proceedings of the Seventh Annual Meeting of the American Association of Farmers' Institute Workers.)



FROM THE REPORT ON FIELD OPERATIONS OF THE BUREAU OF SOILS FOR 1901.

Soil Survey Around Imperial, California.  
 Soil Survey of the San Gabriel Area, California.  
 Soil Survey of the Ventura Area, California.  
 Soil Survey of Cobb County, Georgia.  
 Soil Survey of Covington Area, Georgia.  
 Soil Survey of the Boise Area, Idaho.  
 Soil Survey of the Lake Charles Area, Louisiana.  
 Soil Survey of Prince George County, Maryland.  
 Soil Survey of Allegan County, Michigan.  
 Soil Survey of the Yazoo Area, Mississippi.  
 Soil Survey of the Salem Area, New Jersey.  
 Soil Survey of the Westfield Area, New York.  
 Soil Survey of Alamance County, North Carolina.  
 Soil Survey of the Statesville Area, North Carolina.  
 Soil Survey of the Lebanon Area, Pennsylvania.  
 Soil Survey of Montgomery County, Tennessee.  
 Soil Survey of the Willis Area, Texas.  
 Soil Survey of the Bedford Area, Virginia.  
 Soil Survey of the Prince Edward Area, Virginia.

FARMERS' BULLETINS.

Experiment Station Work—XXI. Prepared in the Office of Experiment Stations. A. C. True, Director. Pp. 32, figs. 3. (Farmers' Bulletin No. 162.)

CONTENTS: Value of barnyard manure—Nitrate of soda for market garden crops—Cooking meat—Sugar-beet products—Feeding horses—Plant poisonous to horses—Fattening beef cattle—Profit from dairy cows—Shearing as affecting gains made by lambs—Soft pork and bacon—Purifying milk—Cheese prints—Draft of farm wagons—The disk plow.

Rape as a Forage Crop. By A. S. Hitchcock, In Charge of Cooperative Experiments, Grass, and Forage Plant Investigations, Bureau of Plant Industry. Pp. 16, fig. 1. (Farmers' Bulletin No. 164.)

Description, uses, methods of cultivation and feeding value of the rape plant.

REPRINTS.

No. 51.—Standard Varieties of Chickens.

No. 94.—The Vegetable Garden.

No. 143.—Conformation of Beef and Dairy Cattle.

PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of that Bureau.]

Monthly Weather Review, December, 1902. Vol. XXX, No. 12. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 553–602, charts 10, figs. 37. (W. B. No. 279.) Price 20 cents; \$2 per year.



Serial Numbers for Weather Bureau Publications. (Reprint from Monthly Weather Review for November, 1902.)

Charts of the Weather Bureau—

Climate and Crop Bulletin (series of 1903) reporting temperature and rainfall with reference to their effect on crops. (No. 1, for the month of January, 1903.)

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *March 31, 1903.*

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[MARCH, 1903.]

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#### NEW PUBLICATIONS.

Infectiveness of Milk of Cows Which Have Reacted to the Tuberculin Test. By John R. Mohler, A. M., V. M. D., Chief of Pathological Division, Bureau of Animal Industry. Pp. 93, pls. 2. (Bulletin No. 44, Bureau of Animal Industry.) Price 10 cents.

Results of tuberculin test in a herd of cattle at St. Elizabeth Asylum, District of Columbia.

American Wines at the Paris Exposition of 1900: Their Composition and Character. By H. W. Wiley, Chief of the Bureau of Chemistry. With a Monograph on the Manufacture of Wines in California. By Henry Lachman of San Francisco, Cal. Pp. 40, pls. 2. (Bulletin No. 72, Bureau of Chemistry.) Price 5 cents.

The Culture of the Mulberry Silkworm. By Henrietta Aiken Kelly, Special Agent in Silk Investigations. Pp. 32, figs. 15. (Bulletin No. 39, new series, Division of Entomology.) Price 5 cents.

Proceedings of the Sixteenth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations Held at Atlanta, Ga., October 7-9, 1902. Edited by A. C. True and W. H. Beal, for the Office of Experiment Stations, and H. C. White, for the Executive Committee of the Association. Pp. 144, pls. 2. (Bulletin No. 123, Office of Experiment Stations.) Price 10 cents.

A Digest of Recent Experiments on Horse Feeding. By C. F. Langworthy, Ph. D., Office of Experiment Stations. Pp. 75. (Bulletin No. 125, Office of Experiment Stations.) Price 5 cents.

Some of the more important results in horse feeding and the deductions therefrom gathered from the American and foreign experimental work, especially that of recent years.

The Agricultural Experiment Station of Porto Rico: Its Establishment, Location, and Purpose. By Frank D. Gardner. Under the supervision of Office of Experiment Stations, U. S. Department of Agriculture. Pp. 15, pls. 4. (Bulletin No. 1, Porto Rico Agricultural Experiment Station.) Price 5 cents.

Same in Spanish.



**Experiment Station Record.** Vol. XIV, No. 7. E. W. Allen, Ph. D., Editor. Pp. ix, 621-724. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

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**The Redwood.** I. A Study of the Redwood. By Richard T. Fisher, Field Assistant, Bureau of Forestry. II. The Brown Rot Disease of the Redwood. By Hermann von Schrenk, Bureau of Plant Industry. III. Insect Enemies of the Redwood. By A. D. Hopkins, Division of Entomology. Pp. 40, frontispiece, pls. 12, figs. 4. (Bulletin No. 38, Bureau of Forestry.) Price 20 cents.

**Conservative Lumbering at Sewanee, Tennessee.** By John Foley, Field Assistant, Bureau of Forestry. Pp. 36, pls. 12. (Bulletin No. 39, Bureau of Forestry.) Price 15 cents.

Description of the forest at Sewanee, recommendations for its management, and results of the work done by the Bureau of Forestry.

**Accessions to the Department Library.** October-December, 1902. Pp. 72. (Library Bulletin No. 45.) Price 5 cents.

**Proceedings of the Jefferson Memorial and Interstate Good Roads Convention, Held at Charlottesville, Va., April 2, 3, and 4, 1902.** Pp. 60, pls. 5, figs. 3. (Bulletin No. 25, Office of Public Road Inquiries.) Price 10 cents.

**The Water Content of Creamery Butter.** By Henry E. Alvord, Chief of Dairy Division. Pp. 4. (Circular No. 39, Bureau of Animal Industry.)

**The Lime, Sulphur, and Salt Wash.** By C. L. Marlatt, Entomologist in Charge of Experimental Field Work. Pp. 8. (Circular No. 52, second series, Division of Entomology.)

**Monthly List of Publications.** February, 1903. (No. 456, Division of Publications.)

**Crop Reporter.** Vol. 4, No. 11. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

A three-column quarto publication devoted to Agricultural topics.

#### REPRINTS.

Bulletin No. 41, Bureau of Animal Industry.—Mexico as a Market for Purebred Beef Cattle from the United States.

Circular No. 35, Bureau of Animal Industry.—Treatment for Roundworms in Sheep, Goats, and Cattle.

Circular No. 36, Biological Survey.—Importation of Reptiles into Hawaii.

Circular No. 37, Biological Survey.—Regulations for the Importation of Eggs of Game Birds for Propagation.

Circular No. 21, Division of Forestry.—Practical Assistance to Farmers, Lumbermen, and Others in Handling Forest Lands.

Circular No. 27, Office of Road Inquiry.—Cost of Hauling Farm Products to Market or to Shipping Points in European Countries.



Office of Road Inquiry. Object-Lesson Roads. (From Yearbook of Department of Agriculture for 1897.)

Rabies: Its Cause, Frequency, and Treatment. (From Yearbook of Department of Agriculture for 1900.)

Agriculture in the Tropical Islands of the United States. (From Yearbook of Department of Agriculture for 1901.)

Report of the Forester for 1902. (From Annual Reports Department of Agriculture.)

Values in Science. (From Experiment Station Record, Vol. XIV, No. 7.)

Report of Irrigation Investigations for 1901. No. 3. Idaho, Montana, Utah, and Colorado. (From Office of Experiment Stations, Bulletin No. 119.)

#### FARMERS' BULLETINS.

Cheese Making on the Farm. Compiled by Henry E. Alvord, Chief of Dairy Division, Bureau of Animal Industry. Pp. 16, figs. 3. (Farmers' Bulletin No. 166.)

Plain directions for making cheese in a small way in the household on the farm.

#### REPRINTS.

No. 24.—Hog Cholera and Swine Plague.

No. 31.—Alfalfa, or Lucern.

No. 32.—Silos and Silage. Revised edition.

No. 35.—Potato Culture.

No. 38.—Spraying for Fruit Diseases.

No. 51.—Standard Varieties of Chickens.

No. 57.—Butter Making on the Farm.

No. 64.—Ducks and Geese: Standard Breeds and Management.

No. 89.—Cowpeas.

No. 91.—Potato Diseases and Their Treatment.

No. 95.—Good Roads for Farmers.

No. 100.—Hog Raising in the South.

No. 106.—Breeds of Dairy Cattle.

No. 109.—Farmers' Reading Courses.

No. 113.—The Apple and How to Grow It.

No. 117.—Sheep, Hogs, and Horses in the Pacific Northwest.

No. 126.—Practical Suggestions for Farm Buildings.

No. 128.—Eggs and Their Uses as Food.

No. 129.—Sweet Potatoes.

No. 141.—Poultry Raising on the Farm.

No. 144.—Experiment Station Work—XIX.

No. 148.—Celery Culture.

No. 152.—Scabies in Cattle,

No. 154.—The Home Fruit Garden: Preparation and Care.

No. 155.—How Insects Affect Health in Rural Districts.

No. 161.—Practical Suggestions for Fruit Growers.

No. 163.—Methods of Controlling the Boll Weevil.



## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

**Meteorological Chart of the Great Lakes** Summary for the Season of 1902. No. 2, 1902. By Alfred J. Henry and Norman B. Conger. Prepared under direction of Willis L. Moore, Chief, U. S. Weather Bureau. Pp. 17, charts 4. (W. B. No. 280.) Price 10 cents.

**Monthly Weather Review.** Annual Summary, 1902. Vol. XXX, No. 13. Prepared under the direction of Willis L. Moore, Chief, U. S. Weather Bureau. Pp. vii, 603-633, pls. 22, charts 7. (W. B. No. 281.) Price 20 cents; \$2 per year.

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## DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *April 30, 1903.*

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[APRIL, 1903.]

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A Study of Cider Making in France, Germany, and England, with Comments and Comparisons on American Work. By William B. Alwood, Special Agent of the U. S. Department of Agriculture and Mycologist of the Virginia Agricultural Experiment Station. Pp. 114, pls. 7, figs. 26. (Bulletin No. 71, Bureau of Chemistry.) Price 20 cents.

Proceedings of the Nineteenth Annual Convention of the Association of Official Agricultural Chemists, Held at Washington, D. C., October 2, 3, and 4, 1902. Edited by Harvey W. Wiley, Secretary of the Association. Pp. 187, frontispiece, figs. 5. (Bulletin No. 73, Bureau of Chemistry.) Price 10 cents.

Sugar-Cane Culture in the Southeast for the Manufacture of Table Sirup. By H. W. Wiley, Chief of the Bureau of Chemistry. I. Fertilizer Experiments on Sugar Cane, Conducted by W. B. Roddenbery, Cairo, Ga. II. Reports of Special Agents on Sugar-Cane Culture, Introduction by G. L. Spencer, Chief of Sugar Laboratory. (Bulletin No. 75, Bureau of Chemistry.) Price 5 cents.

Proceedings of the Fifteenth Annual Meeting of the Association of Economic Entomologists. Pp. 124, pls. 2, figs. 6. (Bulletin No. 40, new series, Division of Entomology.) Price 10 cents.

Studies on the Digestibility and Nutritive Value of Bread at the University of Minnesota in 1900–1902. By Harry Snyder, B. S., Professor of Chemistry, College of Agriculture, University of Minnesota, and Chemist, Agricultural Experiment Station. Pp. 52, pls. 3. (Bulletin No. 126, Office of Experiment Stations.) Price 5 cents.

Statistics of the Land-Grant Colleges and Agricultural Experiment Stations in the United States for the Year Ended June 30, 1902. Pp. 38. (Bulletin No. 128, Office of Experiment Stations.) Price 5 cents.

Experiment Station Record. Vol. XIV, No. 8. E. W. Allen, Ph. D., Editor. Pp. x, 725–828, pl. 1, figs. 7. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers), beginning with Volume X, at \$1, payable in advance.

Relations of Population and Food Products in the United States, Exclusive of Alaska and the Insular Possessions; Mainly as Indicated by Census Reports, 1850–1900. By James H. Blodgett, A. M., Division of Statistics. Pp. 86. (Bulletin No. 24, Division of Statistics.) Price 5 cents.



Crop Reporter. Vol. 4, No. 12. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

A three-column quarto publication devoted to agricultural topics,

Officials, Associations, and Educational Institutions Connected with the Dairy Interests of the United States for the Year 1903. Pp. 11. (Circular No. 40, Bureau of Animal Industry.)

Preliminary Plans and Estimates for Drainage of Fresno District, California. By C. G. Elliott, Agent and Expert, Irrigation Investigations. Pp. 9. (Circular No. 50, Office of Experiment Stations.)

Our Foreign Trade in Agricultural Products, 1902. By Frank H. Hitchcock, Chief, Division of Foreign Markets. Pp. 24. (Circular No. 25, Division of Foreign Markets.)

Monthly List of Publications. March, 1903. (No. 458, Division of Publications.)

#### REPRINTS.

Cir. 23, Bureau of Animal Industry, second revision.—Directions for the Use of Blackleg Vaccine.

Bul. 50, Div. of Chemistry.—Composition of Maize, Including the Grain, Meal, Stalks, Pith, Fodder, and Cobs. Price 5 cents.

Bul. 57, Div. of Chemistry.—Proceedings of the Sixteenth Annual Convention of the Association of Official Agricultural Chemists. Price 10 cents.

Bul. 59, Div. of Chemistry.—The Composition of American Wires. Price 5 cents.

Bul. 60, Div. of Chemistry.—The Sunflower Plant: Its Cultivation, Composition, and Uses. Price 5 cents.

Bul. 1, n. s., third edition, Div. of Entomology.—The Honey Bee: A Manual of Instruction in Apiculture. Price 15 cents.

Bul. 22, n. s., Div. of Entomology.—Some Miscellaneous Results of the Work of the Division of Entomology. IV. Price 10 cents.

Bul. 24, n. s., Div. of Entomology.—A List of Works on North American Entomology. Price 10 cents.

Bul. 29, n. s., Div. of Entomology.—The Fall Army Worm and Variegated Cutworm. Price 5 cents.

Bul. 33, n. s., Div. of Entomology.—Some Insects Injurious to Vegetable Crops. Price 10 cents.

Bul. 36, n. s., Div. of Entomology.—An Index to Buls. 1-30, n. s. (1896-1901). Price 5 cents.

Bul. 12, Office of Road Inquiry.—Wide Tires. Laws of Certain States Relating to their Use, and other Pertinent Information. Price 5 cents.

Cir. 6, Bureau of Chemistry.—Composition Chimique Du Mais et De ses Produits.

Cir. 29, rev. ed., Div. of Entomology.—The Fruit-Tree Bark Beetle.

Cir. 42, s. s., third edition, Div. of Entomology.—How to Control the San Jose Scale.

Cir. 37, rev., Office of Experiment Stations.—Second Report of the Committee on Methods of Teaching Agriculture.

Cir. 41, Office of Experiment Stations.—Fourth Report of Committee on Methods of Teaching Agriculture.

Cir. 15, Div. of Forestry.—Summary of Mechanical Tests on Thirty-two Species of American Woods.

Report of Irrigation Investigations, 1901. No. 1. Summary of Results. Irrigation in New Mexico. Arizona: Irrigation Investigations in Salt River Valley. Irrigation at the Arizona Experiment Station Farm. (From Bul. 119, Office of Experiment Stations.)

Report of Irrigation Investigations, 1901. No. 2. California: Subterranean Water Supply of the San Bernardino Valley. Duty of Water Under Gage Canal, Riverside. Duty of Water in Tule River Basin. Washington: Use of Water in Irrigation in Washington. (From Bul. 119, Office of Experiment Stations.)

Report of Irrigation Investigations for 1901. No. 4. Nebraska, Missouri, Wisconsin, and New Jersey, and Second Progress Report on Silt Measurements. (From Bul. 119, Office of Experiment Stations.)

From Annual Report of the Office of Experiment Stations, 1902:

Report on the Work and Expenditures of the Agricultural Experiment Stations, Year Ended June 30, 1902.



From Annual Report of the Office of Experiment Stations, 1902—Continued.

Annual Report of the Alaska Agricultural Experiment Stations, 1902.

Annual Report of the Hawaii Agricultural Experiment Station, 1902.

Annual Report of the Porto Rico Agricultural Experiment Station, 1902.

Cooperation Between Experiment Stations and Farmers.

Review of Irrigation Investigations for 1902.

Farmers' Institutes in the United States.

"Popular" Editions of Station Bulletins.

Some Features of Recent Progress in Agricultural Education.

Report of the Office of Public Road Inquiries, 1902. (From Annual Reports, Department of Agriculture.)

Sugar-Beet Pulp as Animal Food. (From Report on Progress of Beet-Sugar Industry, 1902.)

From Report on Field Operations, Bureau of Soils, 1901:

Soil Survey of the Hanford Area, California.

Soil Survey of the Lower Salinas Valley, California.

Soil Survey of the Yakima Area, Washington.

#### FARMERS' BULLETINS.

Silkworm Culture. By Henrietta Aiken Kelly, Special Agent in Silk Investigations, Division of Entomology. Pp. 32, figs. 15. (Farmers' Bulletin No. 165.)

Cassava. By S. M. Tracy, M. S., Formerly Director of the Mississippi Agricultural Experiment Station. Pp. 32, figs. 11. (Farmers' Bulletin No. 167.)

#### REPRINTS.

No. 22.—The Feeding of Farm Animals. Revised edition.

No. 35.—Potato Culture.

No. 51.—Standard Varieties of Chickens.

No. 52.—The Sugar Beet: Culture, Seed Development, Manufacture and Statistics.

No. 62.—Marketing Farm Produce.

No. 71.—Some Essentials in Beef Production.

No. 76.—Tomato Growing.

No. 91.—Potato Diseases and Their Treatment.

No. 94.—The Vegetable Garden.

No. 111.—The Farmer's Interest in Good Seed.

No. 112.—Bread and the Principles of Bread Making.

No. 127.—Important Insecticides: Directions for Their Preparation and Use.

No. 128.—Eggs and Their Uses as Food.

No. 134.—Tree Planting on Rural School Grounds.

No. 136.—Earth Roads.

No. 137.—The Angora Goat.

No. 141.—Poultry Raising on the Farm.

No. 143.—Conformation of Beef and Dairy Cattle.

No. 147.—Winter Forage Crops for the South.

No. 149.—Experiment Station Work—XX.

No. 156.—The Home Vineyard.

No. 161.—Practical Suggestions for Fruit Growers.

No. 162.—Experiment Station Work—XXI.

#### PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

Report of the Chief of the Weather Bureau. 1901-1902. By Willis L. Moore. Pp. XXV, 1-342, charts 5. Part I. Administrative Report. Parts II, III, IV, V. Climatology. Part VI. Miscellaneous Tables and Reports.

Monthly Weather Review. January, 1903. Vol. XXXI, No. 1. Prepared under the direction of Willis L. Moore, Chief, U. S. Weather Bureau. Pp. 52, charts 11, figs. 11. (W. B. No. 282.) Price 20 cents, \$2 per year.

Monthly Weather Review. February, 1903. Vol. XXXI, No. 2. Prepared under the direction of Willis L. Moore, Chief, U. S. Weather Bureau. Pp. 53-108, charts 11, figs. 20. (W. B. No. 282.) Price 20 cents, \$2 per year.

Charts of the Weather Bureau—

Climate and crop bulletin (series of 1903) reporting temperature and rainfall with reference to their effect on crops. (No. 3 for March and Nos. 4, 5, and 6 for April.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.



## PUBLICATIONS NOT AVAILABLE. .

*Farmers' Bulletins.*

- No. 1.—The What and Why of Agricultural Experiment Stations.  
 No. 2.—The Work of the Agricultural Experiment Stations.  
 No. 3.—Culture of the Sugar Beet.  
 No. 4.—Fungous Diseases of the Grape and Their Treatment.  
 No. 5.—Treatment of Smuts of Oats and Wheat.  
 No. 6.—Tobacco: Instructions for Its Cultivation and Curing.  
 No. 7.—Spraying for Insect Pests and Fungous Diseases, with a Special Consideration of the Subject in Its Relation to the Public Health.  
 No. 8.—Results of Experiments with Inoculation for the Prevention of Hog Cholera.  
 No. 9.—Milk Fermentations, and Their Relation to Dairying.  
 No. 11.—The Rape Plant: Its History, Culture, and Uses.  
 No. 12.—Nostrums for Increasing the Yield of Butter.  
 No. 13.—Cranberry Culture.  
 No. 14.—Fertilizers for Cotton.  
 No. 15.—Some Destructive Potato Diseases: What They Are and How to Prevent Them.  
 No. 16.—Leguminous Plants for Green Manuring and for Feeding.  
 No. 18.—Forage Plants for the South.  
 No. 19.—Important Insecticides: Directions for Their Preparation and Use.  
 No. 20.—Washed Soils: How to Prevent and Reclaim Them.  
 No. 23.—Foods: Nutritive Value and Cost.  
 No. 26.—Sweet Potatoes: Culture and Uses. Revised.  
 No. 41.—Fowls: Care and Feeding.  
 No. 67.—Forestry for Farmers.  
 No. 90.—The Manufacture of Sorghum Sirup.  
 Applied Entomology in Japan. (From Bul. 40, n. s., Div. of Entomology.)  
 From Bulletin No. 123, Office of Experiment Stations:  
   Report of Section on Horticulture and Botany.  
   Report on Graduate School of Agriculture.  
   Address of the President of the Association of American Agricultural Colleges and Experiment Stations.  
   Tuskegee Normal and Industrial Institute and Experiment Station.  
   The Graduate School of Agriculture as a means of Improving the Pedagogical Form of Courses in Agriculture.  
   Agricultural Education in the South.  
   Military Instruction in Land-Grant Colleges.  
   Some of the Beef Problems of the South and What the Stations Can Do Toward Solving Them.  
   Station Experiments in Animal Breeding.  
   What are the Breeding Problems, and What Can the Station Do to Solve Them?  
   The Source of Carbohydrates for the South for the Production of Meat.  
   Some Important Points in Plant Improvement.  
   The Power Question in the South.  
   Excellencies and Defects of Existing Legislation for the Control of Insect and Fungus Pests.  
   The Need of Better Courses of Preparation for Work in Applied Botany.  
   Plant Physiology and Pathology in College Curricula.  
   The Editing of Experiment-Station Publications. Bulletin Illustration.  
   Lines of Investigation Invitingly Open to Station Botanists.  
   Plant Breeding to Secure Resistant Forms.  
   How Far Should the Experiment be Followed by Educational Effort on the Part of the Experimenter?  
   Variety Testing.  
   Recent Observations and Experiments with Insecticides for the San José Scale.  
   A Method of Conducting Engineering-Laboratory Practice.  
 Bul. 51, Div. of Chemistry.—Proceedings of the Fourteenth Annual Convention of the Association of Official Agricultural Chemists.  
 Some Insect Inhabitants of the Stems of *Elymus Canadensis*, and Some Insect Notes of the Year. (From Bulletin No. 40, n. s., Div. of Entomology.)

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*

GEO. WM. HILL,  
*Editor and Chief.*



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No. 462.

This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., May 29, 1903.

MONTHLY LIST OF PUBLICATIONS.

[MAY, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau. Stamps and personal checks will not be accepted.

Publications for free distribution may be obtained on application to the Secretary of Agriculture, Washington, D. C. Free publications are not distributed by the Superintendent of Documents.

The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

NEW PUBLICATIONS.

Yearbook of the U. S. Department of Agriculture, 1902, Pp. 912, frontispiece, pls. 87, figs. 62.

The Yearbook contains the annual report of the Secretary of Agriculture and thirty-seven miscellaneous papers covering a wide variety of subjects thoroughly representative of the varied, scientific work conducted by the Department.

The Appendix contains a list of names and post-offices of persons prominent in agricultural work in all its branches. It presents some views of agricultural progress in several directions and a statement of public lands open for settlement. It closes with the usual statistical tables covering production and prices of the principal crops, farm animals, and imports and exports of agricultural products.

Only 6 per cent of this publication is assigned to this Department and is insufficient to supply even its regular correspondents and coworkers. Miscellaneous applicants are therefore respectfully referred to their Senators, Representatives, and Delegates in Congress, to whom the other 94 per cent is allotted for distribution. The Superintendent of Documents has it for sale at 85 cents per copy.

Index-Catalogue of Medical and Veterinary Zoology. [Authors: C to Czygan.] By Ch. Wardell Stiles, Ph. D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service, and Albert Hassall, M. R. C. V. S., Acting Assistant Zoologist of Bureau of Animal Industry. Pp. 199–324. (Bulletin No. 39, Part 3, Bureau of Animal Industry.) Price 10 cents.

Annual Report of the Office of Experiment Stations for the Year Ended June 30, 1902. Pp. 547, pls. 48, figs. 2. Price: Cloth, \$1; paper, 75 cents.

Experiment Station Record. Vol. XIV. No. 9. E. W. Allen, Ph. D., Editor. Pp. xi, 829–932. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers), beginning with Volume X, at \$1, payable in advance.

A New Method of Turpentine Orchardling. By Dr. Charles H. Herty, Expert. Pp. 43, frontispiece, pls. 15, figs. 5. (Bulletin No. 40, Bureau of Forestry.) Price 20 cents.

Description of a new method of tapping trees, called the "cup-and-gutter system," by which the amount of turpentine secured is largely increased and the trees are less damaged than by the old methods.

The Woodlot: A Handbook for Owners of Woodlands in Southern New England. By Henry Solon Graves, Director of the Yale Forest School, and Richard Thornton Fisher, Field Assistant in the Bureau of Forestry. Pp. 89, pls. 4, figs. 30. (Bulletin No. 42, Bureau of Forestry.) Price 15 cents.



Accessions to the Department Library. January-March, 1903. Pp. 67. (Library Bulletin No. 46.) Price 5 cents.

The "Bluing" and The "Red Rot" of the Western Yellow Pine, with Special Reference to the Black Hills Forest Reserve. By Hermann Von Schrenk, Special Agent in Charge of the Mississippi Valley Laboratory, Vegetable Pathological and Physiological Investigations. Pp. 40, pls. 14. (Bulletin No. 36, Bureau of Plant Industry.) Price 30 cents.

Crop Reporter. Vol. V, No. 1. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 8.

A three-column quarto publication devoted to Agricultural topics.

The Yellow-Winged Locust (*Camnula pellucida* Scudd.). By C. B. Simpson, Investigator, Division of Entomology. Pp. 3, fig. 1. (Circular No. 53, Division of Entomology.)

Monthly List of Publications. April, 1903. (No. 461, Division of Publications.)

Publications of the U. S. Department of Agriculture for Sale by the Superintendent of Documents, Union Building, Washington, D. C. Corrected to May 1, 1903. Pp. 51. (No. 179, Division of Publications, tenth edition.)

#### REPRINTS.

Report of the Secretary of Agriculture. 1901.

Report No. 66.—Sheep and Wool: A Review of the Progress of American Sheep Husbandry.

Bulletin No. 52, Division of Chemistry, revised.—Experiments with Sugar Beets in 1897. Price 20 cents.

Bulletin No. 58, Division of Chemistry.—The Manufacture of Starch from Cassava. Price 10 cents.

Bulletin No. 75, Bureau of Chemistry.—Sugar-Cane Culture in the Southeast for the Manufacture of Table Sirup. Price 10 cents.

Bulletin No. 4, new series, Division of Entomology, rev. ed.—The Principal Household Insects of the United States. Price 10 cents.

Bulletin No. 5, new series, Division of Entomology.—Insects Affecting Domestic Animals: An Account of the Species of Importance in North America with Mention of Related Forms Occurring on Other Animals. Price 20 cents.

Bulletin No. 16, new series, Division of Entomology.—The Hessian Fly in the United States. Price 10 cents.

Bulletin No. 20, new series, Division of Entomology.—Proceedings of the Eleventh Annual Meeting of the Association of Economic Entomologists. Price 10 cents.

Bulletin No. 25, new series, Division of Entomology.—Notes on the Mosquitoes of the United States: Giving Some Account of Their Structure and Biology, with Remarks on Remedies. Price 5 cents.

Bulletin No. 26, new series, Division of Entomology.—Proceedings of the Twelfth Annual Meeting of the Association of Economic Entomologists. Price 10 cents.

Bulletin No. 27, new series, Division of Entomology, revised edition.—Some Insects Injurious to the Violet, Rose, and Other Ornamental Plants. Price 10 cents.

Bulletin No. 28, new series, Division of Entomology.—Insect Enemies of the Spruce in the Northeast. Price 10 cents.



- Bulletin No. 31, new series, Division of Entomology.—Proceedings of the Thirteenth Annual Meeting of the Association of Economic Entomologists. Price 10 cents.
- Bulletin No. 32, new series, Division of Entomology.—Insect Enemies of the Pine in the Black Hills Forest Reserve. Price 10 cents.
- Bulletin No. 34, new series, Division of Entomology.—Principal Insects Liable to be Distributed on Nursery Stock. Price 5 cents.
- Bulletin No. 35, new series, Division of Entomology.—Report on Codling Moth Investigations. Price 10 cents.
- Bulletin No. 37, new series, Division of Entomology.—Proceedings of the Fourteenth Annual Meeting of the Association of Economic Entomologists. Price 10 cents.
- Bulletin No. 28, Office of Experiment Stations, revised edition.—The Chemical Composition of American Food Materials. Price 5 cents.
- Bulletin No. 98, Office of Experiment Stations.—The Effect of Severe and Prolonged Muscular Work on Food Consumption, Digestion, and Metabolism. Price 5 cents.
- Bulletin No. 8, Forestry Division.—Timber Physics. Part II. Price 15 cents.
- Bulletin No. 29, Division of Forestry.—The Forest Nursery: Collection of Tree Seeds and Propagation of Seedlings. Price 10 cents.
- Bulletin No. 36, Bureau of Forestry.—The Woodman's Handbook. Part I.
- Bulletin No. 23, Office of Public Road Inquiries.—Road Conventions in the Southern States, and Object-Lesson Roads Constructed under the Supervision of the Office of Public Road Inquiries, with the Cooperation of the Southern Railway. Price 15 cents.
- Bulletin No. 25, Office of Public Road Inquiries.—Proceedings of the Jefferson Memorial and Interstate Good Roads Convention, held at Charlottesville, Va., April 2, 3, and 4, 1902. Price 10 cents.
- Circular No. 39, Bureau of Animal Industry.—The Water Content of Creamery Butter.
- Circular No. 35, second series, Division of Entomology.—House Flies (*Musca domestica et al*).
- Circular No. 32, Office of Experiment Stations, revised.—Report of Committee on Methods of Teaching Agriculture.
- Circular No. 45, Office of Experiment Stations.—Fifth Report of Committee on Methods of Teaching Agriculture.
- Circular No. 50, Office of Experiment Stations.—Preliminary Plans and Estimates for Drainage of Fresno District, California.
- Utilization of Residues from Beet-Sugar Manufacture in Cattle Feeding: (From Yearbook for 1898.)
- Little-Known Fruit Varieties Considered Worthy of Wider Dissemination. (From Yearbook for 1901.)
- Road Building With Convict Labor in the Southern States. (From Yearbook for 1901.)
- Dietary Studies of Groups, Especially in Public Institutions. (From Annual Report of the Office of Experiment Stations for 1902.)
- Annual Report of the Alaska Agricultural Experiment Stations for 1902. (From Annual Report of the Office of Experiment Stations for 1902.)
- Single-Germ Beet Balls and Other Suggestions for Improving Sugar-Beet Culture. (From Report on Progress of Beet-Sugar Industry for 1902.)



## FARMERS' BULLETINS.

Pearl Millet. By Carleton R. Ball, Assistant Agrostologist, Bureau of Plant Industry. Pp. 16, figs. 3. (Farmers' Bulletin No. 168.)

Description, history, culture, yield, and feeding value of this forage plant.

Principles of Horse Feeding. By C. F. Langworthy, Ph. D. Prepared under the Supervision of the Office of Experiment Stations. A. C. True, Director. Pp. 44. (Farmers' Bulletin No. 170.)

Discusses the general principles of feeding, with especial reference to horses, and summarizes the results of recent experimental work, particularly that of American experiment stations.

## REPRINTS.

No. 22.—The Feeding of Farm Animals.

No. 24.—Hog Cholera and Swine Plague.

No. 31.—Alfalfa, or Lucern.

No. 35.—Potato Culture.

No. 38.—Spraying for Fruit Diseases.

No. 40.—Farm Drainage.

No. 51.—Standard Varieties of Chickens.

No. 54.—Some Common Birds in Their Relation to Agriculture.

No. 55.—The Dairy Herd: Its Formation and Management.

No. 57.—Butter Making on the Farm.

No. 64.—Ducks and Geese.

No. 96.—Raising Sheep for Mutton.

No. 100.—Hog Raising in the South.

No. 106.—Breeds of Dairy Cattle.

No. 126.—Practical Suggestions for Farm Buildings.

No. 129.—Sweet Potatoes.

No. 136.—Earth Roads.

No. 141.—Poultry Raising on the Farm.

No. 142.—Principles of Nutrition and Nutritive Value of Food.

No. 154.—The Home Fruit Garden: Preparation and Care.

No. 158.—How to Build Small Irrigation Ditches.

## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

Monthly Weather Review, March 1903. Vol. XXXI, No. 3. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 109-164, charts 10, figs. 13.

Charts of the Weather Bureau—

Climate and crop bulletin (series of 1903) reporting temperature and rainfall with reference to their effect on crops. (Nos. 7, 8, 9, and 10 for the month of May, 1903.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

## PUBLICATIONS NOT AVAILABLE.

The Literature of American Economic Entomology. (From Bulletin No. 40, new series, Division of Entomology.)

Methods of Corn Breeding. (From Bulletin No. 123, Office of Experiment Stations.)

Some Peculiar Needs in New States: (a) Home Adornment, (b) Home Production. (From Bulletin No. 123, Office of Experiment Stations.)

Farmers' Bul. No. 10.—The Russian Thistle and Other Troublesome Weeds in the Wheat Region of Minnesota and North and South Dakota.

Approved:

WILLIS L. MOORE,

*Acting Secretary of Agriculture.*

GEO. WM. HILL,

*Editor and Chief.*



This circular will be sent regularly to all who apply for it.

# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *June 30, 1903.*

### MONTHLY LIST OF PUBLICATIONS.

[JUNE, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau. Stamps and personal checks will not be accepted.

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The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

#### NEW PUBLICATIONS.

The Influence of Soil and Climate Upon the Composition of the Sugar Beet, 1901. By Harvey W. Wiley, Chief of Bureau. In collaboration with the Weather Bureau and the Agricultural Experiment Stations of Indiana, Iowa, Kentucky, Michigan, New York, Utah, Virginia, and Wisconsin. Pp. 42, figs. 3. (Bulletin No. 74, Bureau of Chemistry.) Price 5 cents.

Report of Irrigation Investigations in Utah, Under the Direction of Elwood Mead, Chief of Irrigation Investigations, Assisted by R. P. Teele, A. P. Stover, A. F. Doremus, J. D. Stannard, Frank Adams, and G. L. Swendsen. Pp. 330, pls. 19. (Bulletin No. 124, Office of Experiment Stations.) Cloth. Price \$1.10.

Experiment Station Record. Vol. XIV, No. 10. E. W. Allen, Ph. D., Editor. Pp. x, 933–1036. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment Stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers), beginning with Volume X, at \$1, payable in advance.

Experiment Station Work. Vol. II, No. 2. Compiled from the Publications of the Agricultural Experiment Stations. Prepared in the Office of Experiment Stations. A. C. True, Director. Pp. iv, 29–56.

Contents: Pure water for cows—When to cut forage crops—Lippia, or Fog Fruit—Pithiness in celery—Irrigation of strawberries—Farmers' fruit garden—Management of orchards—Tropical and subtropical fruits—China asters—Preserving sweet potatoes—Food value of beans—Tankage for pigs—Remedies for fleas.

Seasoning of Timber. By Hermann Von Schrenk, in charge of Mississippi Valley Laboratory, Bureau of Plant Industry. Pp. 48, pls. 18, figs. 16. (Bulletin No. 41, Bureau of Forestry.) Price 25 cents.

Detailed accounts of different methods of seasoning, both open-air seasoning and by kiln-drying; the results of seasoning tests in different parts of the country and with different timbers; tests with telephone poles, etc.

Formation of the Spores in the Sporangia of *Rhizopus Nigricans* and of *Phycomyces Nitens*. By Deane B. Swingle, Assistant in Pathology, Laboratory of Plant Pathology. Vegetable Physiological and Pathological Investigations. Pp. 40, pls. 6. (Bulletin No. 37, Bureau of Plant Industry.) Price 15 cents.



The Propagation of the Easter Lily from Seed. By George W. Oliver, Expert. Seed and Plant Introduction and Distribution. Pp. 24, pls. 7. (Bulletin No. 39, Bureau of Plant Industry.) Price 10 cents.

The Commercial Grading of Corn. By Carl S. Scofield, Expert, Grain Investigations. Botanical Investigations and Experiments. Pp. 24, pls. 4. (Bulletin No. 41, Bureau of Plant Industry.) Price 10 cents.

Results of investigations of the systems of grain inspection in use in various grain markets of the United States, in order to ascertain how these systems might be improved and made more useful to agricultural and commercial interests.

Three New Plant Introductions from Japan. By David G. Fairchild, Agricultural Explorer. Seed and Plant Introduction and Distribution. Pp. 24, pls. 6. (Bulletin No. 42, Bureau of Plant Industry.) Price 10 cents.

Descriptions of Japanese paper plant, winter salad, and horse-radish.

Crop Reporter. Vol. V, No. 2. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 9-16.

A three-column quarto publication devoted to agricultural topics.

Reclamation of Alkali Lands in Egypt. As Adapted to Similar Work in the United States. By Thos. H. Means, in Charge of Alkali Land Reclamation, Bureau of Soils. In cooperation with the Office of Seed and Plant Introduction and Distribution, Bureau of Plant Industry. Pp. 48, pls. 8, figs. 6. (Bulletin No. 21, Bureau of Soils.) Price 15 cents.

Forestry and the Lumber Supply. Forestry and Foresters. By Theodore Roosevelt. The Exhaustion of the Lumber Supply. By R. L. McCormick. The Lumberman and the Forester. By Gifford Pinchot. Pp. 14. (Circular No. 25, Bureau of Forestry.)

Monthly List of Publications. May, 1903. Pp. 4. (No. 462, Division of Publications.)

#### REPRINTS.

Bulletin No. 72, Bureau of Chemistry.—American Wines at the Paris Exposition of 1900: Their Composition and Character. Price 5 cents.

Bulletin No. 6, Forestry Division.—Timber Physics. Part I. Price 10 cents.

Bulletin No. 10, Division of Forestry.—Timber: An Elementary Discussion of the Characteristics and Properties of Wood. Price 10 cents.

Bulletin No. 40, Bureau of Forestry.—A New Method of Turpentine Orchardling. Price 20 cents.

The Crop Reporter. Vol. I, No. 6.

Circular No. 38, Bureau of Animal Industry.—Foot-and-Mouth Disease.

Circular No. 31, Division of Entomology, revised edition.—The Striped Cucumber Beetle (*Diabrotica vittata* Fab.).

Circular No. 53, Division of Entomology.—The Yellow-Winged Locust (*Cammela pellucida* Scudd.).

Circular No. 21, Office of Road Inquiry.—Methods of Constructing Macadamized Roads.

Circular No. 26, Office of Road Inquiry.—Going in Debt for Good Roads.

Circular No. 32, Office of Road Inquiry.—State Aid to Road Building in Minnesota.

Circular No. 35, Office of Public Road Inquiries.—Road Improvement in New York.

Sugar-Beet Pulp as Animal Food. (Reprint from Report on Progress of Beet-Sugar Industry, 1902.)



Single-Germ Beet Balls and Other Suggestions for Improving Sugar-Beet Culture.  
(Reprint from Report on Progress of Beet-Sugar Industry, 1902.)

FROM YEARBOOK OF DEPARTMENT OF AGRICULTURE FOR 1902.

Industrial Progress in Plant Work.

Some of the Principal Insect Enemies of Coniferous Forests in the United States.

Analysis of Waters and Interpretation of the Results.

The Contamination of Public Water Supplies by Algae.

Climate of the Forest-Denuded Portion of the Upper Lake Region.

Chemical Studies of Some Forest Products of Economic Importance.

The San Jose Scale: Its Native Home and Natural Enemy.

The Agaves, a Remarkable Group of Useful Plants.

Bacteria and the Nitrogen Problem.

Audubon Societies in Relation to the Farmer.

Rainfall and Irrigation.

Dairying at Home and Abroad.

Cultivation and Fertilization of Peach Orchards.

Practicability of Forest Planting in the United States.

Progress in Secondary Education in Agriculture.

Influence of Forestry upon the Lumber Industry.

Crops Used in the Reclamation of Alkali Lands in Egypt.

Use of Mineral Oil in Road Improvement.

Top Working Orchard Trees.

A Directory for Farmers. (Corrected to April 1, 1903.)

Statistical Matter Relating to Principal Crops and Farm Animals, Freight Rates,  
Exports, etc., of the United States, 1902.

Grape, Raisin, and Wine Production in the United States.

Fertilizers for Special Crops.

Foot-and-Mouth Disease.

Some Engineering Features of Drainage.

Tests on the Physical Properties of Timber.

Some Practical Results of Experiment Station Work.

Flaxseed Production, Commerce, and Manufacture in the United States.

Selecting and Judging Horses for Market and Breeding Purposes.

Practices in Crop Rotation.

Improvement of Corn by Seed Selection.

Improvement of Cotton by Seed Selection.

The Cost of Food as Related to Its Nutritive Value.

Systems of Farm Management in the United States.

Promising New Fruits.

Plants as a Factor in Home Adornment.

FARMERS' BULLETINS.

Experiment Station Work—XXII. Prepared in the Office of Experiment Stations.

A. C. True, Director. Pp. 32, figs. 6. (Farmers' Bulletin No. 169.)

CONTENTS: Pure water for cows—When to cut forage crops—Lippia, or Fog Fruit—Pithiness in Celery—Irrigation of strawberries—Farmers' fruit garden—Management of orchards—Tropical and subtropical fruits—China asters—Preserving sweet potatoes—Food value of beans—Tankage for pigs—Remedies for fleas.

The Control of the Codling Moth. By C. B. Simpson, Division of Entomology.

Pp. 24, figs. 4. (Farmers' Bulletin No. 171.)

Life history, distribution, and spread of the codling moth, its natural enemies and measures used against it.

Scale Insects and Mites on Citrus Trees. By C. L. Marlatt, Entomologist in Charge of Experimental Field Work. Pp. 43, figs. 34. (Farmers' Bulletin No. 172.)

Information in relation to the more important scale insect and mite enemies of citrus trees of special interest in California, throughout the Gulf region, including Florida, and in our subtropical possessions.

**Home Manufacture and Use of Unfermented Grape Juice.** By George C. Husmann, Expert in Charge of Viticultural Investigations, Bureau of Plant Industry, U. S. Department of Agriculture. Pp. 16, figs. 7. (Farmers' Bulletin No. 175.)

Information regarding appliances and methods of manufacture of unfermented grape juice adapted to the ordinary farm and kitchen.

#### REPRINTS.

- No. 42.—Facts About Milk.
- No. 55.—The Dairy-Herd: Its Formation and Management.
- No. 62.—Marketing Farm Produce.
- No. 64.—Ducks and Geese: Standard Breeds and Management.
- No. 91.—Potato Diseases and Their Treatment.
- No. 95.—Good Roads for Farmers.
- No. 106.—Breeds of Dairy Cattle.
- No. 110.—Rice Culture in the United States.
- No. 112.—Bread and the Principles of Bread Making.
- No. 113.—The Apple and How to Grow It.
- No. 116.—Irrigation in Fruit Growing.
- No. 121.—Beans, Peas, and Other Legumes as Food. Revised edition.
- No. 126.—Practical Suggestions for Farm Buildings.
- No. 128.—Eggs and Their Uses as Food.
- No. 142.—Principles of Nutrition and Nutritive Value of Food. Revised edition.
- No. 157.—The Propagation of Plants.
- No. 160.—Game Laws for 1902. A Summary of the Provisions Relating to Seasons, Shipment, Sale, and Licenses.
- No. 164.—Rape as a Forage Crop.
- No. 170.—Principles of Horse Feeding.

#### PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

**Meteorological Chart of the Great Lakes.** No. 1, 1903. By Alfred J. Henry and Norman B. Conger. Prepared under direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 23. (W. B. No. 286.) Price 10 cents.

**Monthly Weather Review.** Vol. XXXI, No. 4. April, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 165-216, figs. 7, charts 10. (W. B. No. 287.) Price 20 cents; \$2 per year.

**Charts of the Weather Bureau—**

Climate and Crop Bulletin (series of 1903), reporting temperature and rainfall with reference to their effect on crops. Nos. 11, 12, 13, 14, and 15 for the month of June, 1903.)

Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

#### PUBLICATIONS NOT AVAILABLE.

Wet and Dry Seasons in California. (From Yearbook for 1902.)

The Educational Value of Live-Stock Exhibitions. (From Yearbook for 1902.)

Distribution and Magnitude of the Poultry and Egg Industry. (From Yearbook for 1902.)

Approved:

J. H. BRIGHAM,

*Acting Secretary of Agriculture.*

GEO. WM. HILL,

*Editor and Chief.*



1  
P96M  
This circular will be sent regularly to all who apply for it.

No. 467.

United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *July 31, 1903.*

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MONTHLY LIST OF PUBLICATIONS.

[JULY, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau. Stamps and personal checks will not be accepted.

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The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

NEW PUBLICATIONS.

Index-Catalogue of Medical and Veterinary Zoology. [Authors: D to Dziembowski.] By Ch. Wardell Stiles, Ph. D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service, and Albert Hassall, M. R. C. V. S., Veterinary Inspector, Bureau of Animal Industry. Pp. 325-403. (Bulletin No. 39, Part IV, Bureau of Animal Industry.) Price 5 cents.

The Milk Supply of Two Hundred Cities and Towns. By Henry E. Alvord, C. E., Chief of Dairy Division, and R. A. Pearson, M. S., Assistant Chief of Dairy Division. Pp. 210. (Bulletin No. 46, Bureau of Animal Industry.) Price 15 cents.

Insecticide Studies. I. Pyrethrum Powders Containing Poisonous Metals. II. A Compilation of Analyses of Insecticides and Fungicides. III. State Laws Governing the Composition and Sale of Insecticides. By J. K. Haywood, Chief, Insecticide and Agricultural Water Laboratory. Pp. 63. (Bulletin No. 76, Bureau of Chemistry.) Price 5 cents.

Dietary Studies in Boston and Springfield, Mass., Philadelphia, Pa., and Chicago, Ill. By Lydia Southard, Ellen H. Richards, Susannah Usher, Bertha M. Terrill, and Amelia Shapleigh. Edited by R. D. Milner. Pp. 103. (Bulletin No. 129, Office of Experiment Stations.) Price 10 cents.

Experiment Station Record. Vol. XIV, No. 11. E. W. Allen, Ph. D., Editor. Pp. x, 1037-1140. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers), beginning with Volume X, at \$1, payable in advance.

Sources of the Agricultural Imports of the United States, 1898-1902. By Frank H. Hitchcock. Pp. 150. (Bulletin No. 31, Division of Foreign Markets.) Price 10 cents.

Distribution of the Agricultural Exports of the United States, 1898-1902. By Frank H. Hitchcock. Pp. 224. (Bulletin No. 32, Division of Foreign Markets.) Price 15 cents.

Miscellaneous Papers. I. The Seeds of Rescue Grass and Chess. By F. H. Hillman, Assistant, Seed Laboratory. II. Saragolla Wheat. By David G. Fairchild, Agricultural Explorer. III. Plant Introduction Notes from South Africa. By David G. Fairchild, Agricultural Explorer. IV. Congressional Seed and Plant Distribution Circulars, 1902-1903. Botanical Investigations and Experiments and Seed and Plant Introduction and Distribution. Pp. 82, pls. 3, figs. 6. (Bulletin No. 25, Bureau of Plant Industry.) Price 15 cents.

Forage Conditions and Problems in Eastern Washington, Eastern Oregon, Northeastern California, and Northwestern Nevada. By David Griffiths, Assistant in Charge of Range Investigations. Grass and Forage Plant Investigations. Pp. 52, pls. 9. (Bulletin No. 38, Bureau of Plant Industry.) Price 15 cents.

Japanese Bamboos and Their Introduction into America. By David G. Fairchild, Agricultural Explorer. Seed and Plant Introduction and Distribution. Pp. 36, pls. 8. (Bulletin No. 43, Bureau of Plant Industry.) Price 10 cents.

Calls attention to the possibilities of the introduction into the United States and describes some of the most important species.

The Bitter Rot of Apples. By Herman Von Schrenk, Special Agent in Charge of the Mississippi Valley Laboratory, and Perley Spaulding, Special Agent. Vegetable Pathological and Physiological Investigations. Pp. 54, pls. 9, figs. 9. (Bulletin No. 44, Bureau of Plant Industry.) Price 15 cents.

The Physiological Role of Mineral Nutrients in Plants. By Dr. Oscar Loew, Professor of Agricultural Chemistry in the Imperial University of Japan. Vegetable Pathological and Physiological Investigations. Pp. 70. (Bulletin No. 45, Bureau of Plant Industry.) Price 5 cents.

Milk Transportation: Freight Rates to the Largest Fifteen Cities in the United States. By Edward G. Ward, jr., Expert in Transportation Statistics. Pp. 60. (Bulletin No. 25, Division of Statistics.) Price 5 cents.

Crop Reporter. Vol. V, No. 3. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 17-24.

A three-column quarto publication devoted to agricultural topics.

Monthly List of Publications. June, 1903. Pp. 4. (No. 464, Division of Publications.)

The Use of Alkaline and Saline Waters for Irrigation. By Thomas H. Means, in Charge of Alkali Reclamation Work. Pp. 4. (Circular No. 10, Bureau of Soils.)

#### REPRINTS.

Bulletin No. 25, Division of Entomology.—Destructive Locusts. Price 15 cents.

Bulletin No. 24, Bureau of Forestry.—A Primer of Forestry. Part I. The Forest. Price 35 cents.



The Blue Jay and Its Food. (From Yearbook for 1896.)

The Principal Injurious Insects in 1902. By F. H. Chittenden, Entomologist, in Charge of Breeding Experiments. Pp. 726-733. (From Yearbook for 1902.)

FROM NINETEENTH ANNUAL REPORT OF THE BUREAU OF ANIMAL INDUSTRY, 1902.

Distribution and Magnitude of the Poultry and Egg Industry.

The Duration of the Life of the Tubercle Bacillus in Cheese.

Feeding Fat into Milk; or the Effect of the Food upon the Quantity and Quality of Milk Produced.

Statistics of Oleomargarine, Oleo Oil, and Filled Cheese, 1900 to 1902.

#### FARMERS' BULLETINS.

Scab in Sheep. By D. E. Salmon, D. V. M., Chief of Bureau of Animal Industry, and Ch. Wardell Stiles, Ph. D., Zoologist of Bureau of Animal Industry. Pp. 48, figs. 17. (Farmers' Bulletin No. 159.)

Description of common scab of sheep, descriptions of several kinds of dipping plants suitable for use on small and on large farms, directions for preparing certain homemade dips, and directions for dipping.

A Primer of Forestry. By Gifford Pinchot, Forester. Pp. 48, figs. 33. (Farmers' Bulletin No. 173.)

Deals with the units which compose the forest, with its character as an organic whole, and with its enemies. It treats of the life of a tree, trees in the forest, the life of a forest, and the enemies of the forest.

Broom Corn. By Charles P. Hartley, Assistant in Physiology, Plant-Breeding Laboratory, Vegetable Pathological and Physiological Investigations, Bureau of Plant Industry. Pp. 32, figs. 10. (Farmers' Bulletin No. 174.)

Description of the plant, choice of fields, planting, cultivating, harvesting, drying, bulking, baling, marketing, diseases, and enemies.

Cranberry Culture. By L. C. Corbett, Horticulturist, Bureau of Plant Industry. Pp. 20, figs. 12. (Farmers' Bulletin No. 176.)

Describes the plant, treats of its propagation and cultivation and of harvesting, assorting, storing, and marketing the berries.

Squab Raising. By William E. Rice. Pp. 32, figs. 11. (Farmers' Bulletin No. 177.)

Keeping pigeons for squab growing treated from a practical standpoint.

#### REPRINTS.

No. 24.—Hog Cholera and Swine Plague.

No. 76.—Tomato Growing.

No. 98.—Suggestions to Southern Farmers.

No. 109.—Farmers' Reading Courses.

No. 162.—Experiment Station Work, XXI.

#### PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

Storms of the Great Lakes. By E. B. Garriott, Professor of Meteorology. Prepared under direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 9, charts 568. Bulletin K. (W. B. No. 288.) Quarto; cloth. Price 50 cents.

Monthly Weather Review. Vol. XXXI, No. 5. May, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 217-258, charts 22 figs. 2. (W. B. No. 289.) Price 20 cents; \$2 per year.

Charts of the Weather Bureau—

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Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

JOS. A. ARNOLD,  
*Acting Chief.*

Approved:

WILLIS L. MOORE,  
*Acting Secretary of Agriculture.*

## NOTES REGARDING DEPARTMENT PUBLICATIONS.

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I. Publications issued annually, comprising the Yearbooks, the Annual Reports of the Department, of the Bureau of Animal Industry, of the Bureau of Soils, and of the Weather Bureau.

II. Other Departmental reports, divisional bulletins, etc. Of these, each bureau, division, and office has its separate series in which the publications are numbered consecutively as issued. They comprise reports and discussions of a scientific or technical character.

III. Farmers' bulletins, divisional circulars, reprinted Yearbook articles, and other popular papers.

The publications in Class I are distributed by the Department and by Senators and Representatives in Congress. For instance, of the 500,000 copies of the Yearbook usually issued, the Department is allotted only 30,000, while the remaining 470,000 copies are distributed by members of Congress. The Department's supply of the publications of this class is, therefore, limited, and consequently has to be reserved almost exclusively for distribution to its own special correspondents, and in return for services rendered.

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This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *August 31, 1903.*

**MONTHLY LIST OF PUBLICATIONS.**

[AUGUST, 1903.]

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NEW PUBLICATIONS.

Foreign Trade of the United States in Forest Products, 1902. By Frank H. Hitchcock. Pp. 70. (Bulletin No. 33, Division of Foreign Markets.) Price 5 cents.

Accessions to the Department Library. April-June, 1903. Pp. 56. (Library Bulletin No. 47.) Price 5 cents.

The Propagation of Tropical Fruit Trees and Other Plants. By George W. Oliver, Expert. Seed and Plant Introduction and Distribution. Pp. 28, pls. 8. (Bulletin No. 46, Bureau of Plant Industry.) Price 10 cents.

The Description of Wheat Varieties. By Carl S. Scofield, Botanist in Charge of Grain Grade Investigations. Botanical Investigations and Experiments. Pp. 19, pls. 7. (Bulletin No. 47, Bureau of Plant Industry.) Price 10 cents.

Wild Rice: Its Uses and Propagation. By Edgar Brown, Botanist in Charge of Seed Laboratory, and Carl S. Scofield, Botanist in Charge of Grain Grade Investigation. Botanical Investigations and Experiments. Pp. 24, pls. 7. (Bulletin No. 50, Bureau of Plant Industry.) Price 10 cents.

Belgium's Foreign Trade in Agricultural Products for 1902. By Frank H. Hitchcock, Chief. Pp. 8. (Circular No. 26, Division of Foreign Markets.)

Monthly List of Publications. July, 1903. Pp. 4. (No. 467, Division of Publications.)

Crop Reporter. Vol. 5, No. 4. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 25-32.

A three-column quarto publication devoted to agricultural topics.

## REPRINTS.

- Bulletin No. 16, Division of Botany, revised edition.—American Ginseng: Its Commercial History, Protection, and Cultivation. Price 5 cents.
- Bulletin No. 46, Division of Chemistry, revised edition.—Methods of Analysis Adopted by the Association of Official Agricultural Chemists, November 11, 12, and 14, 1898. Price 5 cents.
- Bulletin No. 73, Bureau of Chemistry.—Proceedings of the Nineteenth Annual Convention of the Association of Official Agricultural Chemists, Held at Washington, D. C., October 2, 3, and 4, 1902. Price 10 cents.
- Bulletin No. 41, Bureau of Forestry.—Seasoning of Timber. Price 25 cents.
- Division of Pomology.—Nut Culture in the United States. Embracing Native and Introduced Species. Price 30 cents.
- Bulletin No. 12, Office of Road Inquiry.—Wide Tires. Laws of Certain States Relating to their Use, and Other Pertinent Information. Price 5 cents.
- Circular No. 21, revised, Bureau of Forestry.—Practical Assistance to Farmers, Lumbermen, and Others, in Handling Forest Lands.
- Circular No. 25, Bureau of Forestry.—Forestry and the Lumber Supply.
- Birds as Weed Destroyers. (From Yearbook for 1898.)
- Steel-Track Wagon Roads. (From Yearbook for 1898.)
- The American Saddle Horse. (From Nineteenth Annual Report of the Bureau of Animal Industry.)
- Foot-and-Mouth Disease. (From Nineteenth Annual Report of the Bureau of Animal Industry.)
- The Tuberculin Test of Cattle in Great Britain. (From Nineteenth Annual Report of the Bureau of Animal Industry.)

## FARMERS' BULLETINS.

## REPRINTS.

- No. 22.—The Feeding of Farm Animals.
- No. 24.—Hog Cholera and Swine Plague.
- No. 28.—Weeds: And How to Kill Them.
- No. 35.—Potato Culture.
- No. 42.—Facts About Milk.
- No. 44.—Commercial Fertilizers: Composition and Use.
- No. 51.—Standard Varieties of Chickens.
- No. 52.—The Sugar Beet: Culture, Seed Development, Manufacture, and Statistics.
- No. 63.—Care of Milk on the Farm.
- No. 64.—Ducks and Geese: Standard Breeds and Management.
- No. 66.—Meadows and Pastures: Formation and Cultivation in the Middle Eastern States.
- No. 74.—Milk as Food.
- No. 81.—Corn Culture in the South.
- No. 89.—Cowpeas.
- No. 94.—The Vegetable Garden.
- No. 96.—Raising Sheep for Mutton.
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- No. 121.—Beans, Peas, and Other Legumes as Food.  
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 No. 132.—The Principal Insect Enemies of Growing Wheat.  
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 No. 134.—Tree Planting on Rural School Grounds.  
 No. 136.—Earth Roads.  
 No. 141.—Poultry Raising on the Farm.  
 No. 143.—Conformation of Beef and Dairy Cattle.  
 No. 147.—Winter Forage Crops for the South.  
 No. 148.—Celery Culture.  
 No. 154.—The Home Fruit Garden: Preparation and Care.  
 No. 157.—The Propagation of Plants.  
 No. 158.—How to Build Small Irrigation Ditches.  
 No. 161.—Practical Suggestions for Fruit Growers.  
 No. 166.—Cheese Making on the Farm.  
 No. 167.—Cassava.

#### PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

Studies on the Meteorological Effects in the United States of the Solar and Terrestrial Physical Processes. Reprint from the Monthly Weather Review, December, 1902, January and February, 1903. By Frank H. Bigelow, M. A., L. H. D., Professor of Meteorology. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. (W. B. No. 290.)

#### Charts of the Weather Bureau—

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *September 30, 1903.*

### MONTHLY LIST OF PUBLICATIONS.

[SEPTEMBER, 1903.]

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#### NEW PUBLICATIONS.

Progress of the Beet-Sugar Industry in the United States in 1902. Pp. 221, pls. 5, figs. 65. (Report No. 74.) Price 20 cents.

Annual report of Charles F. Saylor, Special Agent, showing the present status of the beet-sugar industry in the United States and the progress made during 1902. Papers on sugar-beet seed: Its importance and production, by J. E. W. Tracy, of the Bureau of Plant Industry; single-germ beet balls and other suggestions for improving sugar-beet culture, by Truman G. Palmer, and the principal insect enemies of the sugar beet, by F. H. Chittenden, of the Division of Entomology.

Index-Catalogue of Medical and Veterinary Zoology. Part 5. [Authors: E to Eyssel.] By Ch. Wardell Stiles, Ph. D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service, and Albert Hassall, M. R. C. V. S., Veterinary Inspector, Bureau of Animal Industry. Pp. ii, 405-435. (Bulletin No. 39, Bureau of Animal Industry.) Price 5 cents.

Takosis, A Contagious Disease of Goats. A Preliminary Report on Its Nature, Cause, and Prevention. By John R. Mohler, V. M. D., A. M., Chief of Pathological Division, Bureau of Animal Industry, and Henry J. Washburn, D. V. S., Acting Assistant Chief of Pathological Division, Bureau of Animal Industry. Pp. 44, pls. 5. (Bulletin No. 45, Bureau of Animal Industry.) Price 10 cents.

The Animal Industry of Argentina. By Frank W. Bicknell, Special Agent and Agricultural Explorer. Pp. 72, frontispiece, pls. 15. (Bulletin No. 48, Bureau of Animal Industry.) Price 20 cents.

Instruction in Agronomy at Some Agricultural Colleges. By A. C. True and D. J. Crosby. Pp. 85, pls. 17, figs. 22. (Bulletin No. 127, Office of Experiment Stations.) Price 20 cents.

Egyptian Irrigation: A Study of Irrigation Methods and Administration in Egypt. By Clarence T. Johnston, Assistant Chief, Irrigation Investigations. Pp. 100, frontispiece, pls. 24, figs. 9. (Bulletin No. 130, Office of Experiment Stations.) Price 30 cents.

Plans of Structures in Use on Irrigation Canals in the United States. From drawings exhibited by the Office of Experiment Stations at Paris in 1900 and at Buffalo in 1901. Prepared under the direction of Elwood Mead, Chief of Irrigation Investigations. Pp. 51, pls. 22. (Bulletin No. 131, Office of Experiment Stations.) Cloth. Price 60 cents.

Further Investigations Among Fruitarians at the California Agricultural Experiment Station, 1901-1902. By M. E. Jaffa, M. S., Assistant Professor of Agriculture, University of California. Pp. 81. (Bulletin No. 132, Office of Experiment Stations.) Price 5 cents.

Report of Irrigation Investigations for 1902, Under the Direction of Elwood Mead, Chief of Irrigation Investigations. Containing Reports by E. R. Morgan, J. D. Stannard, B. P. Fleming, O. L. Waller, S. Fortier, W. T. Clarke and C. W. Landis, A. B. Crane, Frank Bond, J. C. Nagle, H. J. Waters, A. R. Whitson, E. B. Voorhees, and Jared Smith. Pp. 266, pls. 12, figs. 16. (Bulletin No. 133, Office of Experiment Stations.) Price 25 cents.

Storage of Water on Cache La Poudre and Big Thompson Rivers. By C. E. Tait, Assistant in Irrigation Investigations. Pp. 100, pls. 5, figs. 10. (Bulletin No. 134, Office of Experiment Stations.) Price 10 cents.

Legislation Relating to Farmers' Institutes in the United States and the Province of Ontario, Canada. By John Hamilton, Farmers' Institute Specialist. Pp. 53. (Bulletin No. 135, Office of Experiment Stations.) Price 5 cents.

Experiment Station Record. Vol. XIV, No. 12. Index number. E. W. Allen, Ph. D., Editor. Pp. xviii, 1141-1249. Price 10 cents.

Experiment Station Record. Vol. XV, No. 1. E. W. Allen, Ph. D., Editor. Pp. x, 1-104, pl. 1, figs. 4. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers) beginning with Volume X, at \$1, payable in advance.

A Working Plan for Forest Lands in Hampton and Beaufort Counties, South Carolina. By Thomas H. Sherrard, Field Assistant, Bureau of Forestry. Pp. 54, pls. 13, diagrams 11. (Bulletin No. 43, Bureau of Forestry.) Price 15 cents.

The Diminished Flow of the Rock River in Wisconsin and Illinois, and Its Relation to the Surrounding Forests. By G. Frederick Schwarz, Field Assistant, Bureau of Forestry. Pp. 27, pls. 6. (Bulletin No. 44, Bureau of Forestry.) Price 10 cents.

Cold Storage, With Special Reference to the Pear and Peach. By G. Harold Powell, Assistant Pomologist in Charge of Field Investigations, and S. H. Fulton, Assistant in Pomology. Pomological Investigations. Pp. 28, pls. 7. (Bulletin No. 40, Bureau of Plant Industry.) Price 15 cents.

The Cold Curing of Cheese. Report upon Experiments Conducted Under the Auspices of the U. S. Department of Agriculture, Bureau of Animal Industry, Dairy Division, in Cooperation with the Wisconsin Agricultural Experiment Station. By S. M. Babcock and H. L. Russell, Assisted by U. S. Baer, Madison, Wis., and L. L. Van Slyke, G. A. Smith, and E. B. Hart, Geneva, N. Y. Pp. 88, pls. 4, figs. 22. (Bulletin No. 49, Bureau of Animal Industry.) Price 10 cents.

The Wilt Disease of Tobacco and Its Control. By R. E. B. McKenney, Physiologist, Vegetable Pathological and Physiological Investigations. Pp. 6, fig. 1. Bulletin No. 51, Part 1, Bureau of Plant Industry.) Price 5 cents.



Proceedings of the National Good Roads Convention Held at St. Louis, Mo., April 27 to 29, 1903. Pp. 80. (Bulletin No. 26, Office of Public Road Inquiries.) Price 5 cents.

The Chemistry of the Soil as Related to Crop Production. By Milton Whitney and F. K. Cameron. Pp. 71. (Bulletin No. 22, Bureau of Soils.) Price 5 cents.

Shows that practically all soils have sufficient available plant food for normal crop yields, and that this supply is constantly maintained through natural agencies in the soils dissolving the material of the soil grains.

Regulations for the Protection of Game in Alaska. Pp. 6. (Circular No. 39, Biological Survey.)

Directory of State Officials and Organizations Concerned with the Protection of Birds and Game, 1903. Pp. 12. By T. S. Palmer, Assistant in Charge of Game Preservation. (Circular No. 40, Biological Survey.)

List of State Directors of Farmers' Institutes and Farmers' Institute Lecturers of the United States. By John Hamilton, Farmers' Institute Specialist. Pp. 23. (Circular No. 51, Office of Experiment Stations.)

Organization of Department of Agriculture, 1903-1904. By Geo. Wm. Hill, Editor. Pp. 23. (Circular No. 1, Division of Publications.) Revised to September 1, 1903.

Monthly List of Publications. August, 1903. Pp. 4. (No. 469, Division of Publications.)

Reclamation of Alkali Land at Fresno, California. By Thomas H. Means and W. H. Heileman. Pp. 9. (Circular No. 11, Bureau of Soils.)

Crop Reporter. Vol. 5, No. 5. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 33-40.

A three-column quarto publication devoted to agricultural topics.

#### REPRINTS.

North American Fauna No. 22.—A Biological Investigation of the Hudson Bay Region. Price 20 cents.

Bulletin No. 16, Division of Botany, revised edition.—American Ginseng: Its Commercial History, Protection, and Cultivation. Price 5 cents.

Bulletin No. 71, Bureau of Chemistry.—A Study of Cider Making in France, Germany, and England, with Comments and Comparisons on American Work. Price 20 cents.

Bulletin No. 42, Bureau of Forestry.—The Woodlot: A Handbook for Owners of Woodlands in Southern New England. Price 15 cents.

Bulletin No. 1, Bureau of Plant Industry.—The Relation of Lime and Magnesia to Plant Growth. Price 10 cents.

Bulletin No. 44, Bureau of Plant Industry.—The Bitter Rot of Apples. Price 15 cents.

Circular No. 8, revised, Bureau of Chemistry.—Official Method for Analysis of Tanning Materials.

Circular No. 12, Division of Forestry.—Southern Pine—Mechanical and Physical Properties.

Circular No. 22, revised edition, Division of Forestry.—Practical Assistance to Tree Planters.

Some Problems of the Rural Common School. (From Yearbook for 1901.)

Government Cooperation in Object-Lesson Road Work. (From Yearbook for 1901.)

The Principal Insect Enemies of the Sugar Beet. (From Report 74, Progress of Beet Sugar Industry.)

New Agricultural Building at the University of Wisconsin. (From Experiment Station Record Vol. XV, No. 1.)

## FROM NINETEENTH ANNUAL REPORT OF THE BUREAU OF ANIMAL INDUSTRY, 1902.

Report on an Enzootic Among Cattle Caused by a Bacillus of the Enteritidis Group.

Sheep Ranching in the Western States.

The American Saddle Horse.

## FROM FIELD OPERATIONS OF THE BUREAU OF SOILS, 1902.

Soil Survey of the Bigflats Area, New York.

Soil Survey of the Vernon Area, Texas.

Soil Survey of the Darlington Area, South Carolina.

Soil Survey of Clay County, Illinois.

## FARMERS' BULLETINS.

Insects Injurious in Cranberry Culture. By John B. Smith, Professor of Entomology, New Jersey Agricultural College. Pp. 32, figs. 12. (Farmers Bulletin No. 178.)

Descriptions of insects that attack the foliage, the stem, and fruit of the cranberry and remedial measures.

## REPRINTS.

No. 28.—Weeds: And How to Kill Them.

No. 38.—Spraying for Fruit Diseases.

No. 57.—Butter Making on the Farm.

No. 63.—Care of Milk on the Farm.

No. 91.—Potato Diseases and Their Treatment.

No. 94.—The Vegetable Garden.

No. 95.—Good Roads for Farmers.

No. 123.—Red Clover Seed: Information for Purchasers.

No. 127.—Important Insecticides: Directions for Their Preparation and Use.

No. 133.—Experiment Station Work—XVIII.

No. 136.—Earth Roads.

No. 141.—Poultry Raising on the Farm.

No. 142.—Principles of Nutrition and Nutritive Value of Food.

No. 143.—Conformation of Beef and Dairy Cattle.

No. 144.—Experiment Station Work—XIX.

No. 149.—Experiment Station Work—XX.

No. 152.—Scabies in Cattle.

No. 154.—The Home Fruit Garden: Preparation and Care.

No. 156.—The Home Vineyard, with Special Reference to Northern Conditions.

No. 157.—The Propagation of Plants.

No. 161.—Practical Suggestions for Fruit Growers.

No. 166.—Cheese Making on the Farm.

No. 169.—Experiment Station Work—XXII.

No. 170.—Principles of Horse Feeding.

## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of the Bureau.]

Monthly Weather Review. Vol. XXXI, No. 6. June, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 259-307, figs. 7, charts 9. (W. B. No. 291.)

Monthly Weather Review. Vol. XXXI, No. 7. July, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 309-363, figs. 18, charts 9. (W. B. No. 293.) Price 20 cents; \$2 per year.

Charts of the Weather Bureau—

Climate and Crop Bulletin (series of 1903), reporting temperature and rainfall with reference to their effect on crops. (Nos. 25, 26, 27, and 28 for the month of September, 1903.)

Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

GEO. WM. HILL,  
*Editor and Chief.*

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*



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P96M  
No. 473.

This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *October 31, 1903.*

MONTHLY LIST OF PUBLICATIONS.  
[OCTOBER, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau. Stamps and personal checks will not be accepted.

Publications for free distribution may be obtained on application to the Secretary of Agriculture, Washington, D. C. Free publications are not distributed by the Superintendent of Documents. The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

NEW PUBLICATIONS.

Nineteenth Annual Report of the Bureau of Animal Industry for the Year 1902. Pp. 651, pls. 64, map. Cloth, price \$1.10; in paper, 95 cents.

CONTENTS: Report of the Chief of the Bureau—The work against sheep scab in 1902—Scabies in cattle—The American Saddle Horse—Sheep ranching in the Western States—Welsh mountain sheep—Feeding native steers—The relation of protein in cottonseed meal, cowpea hay, and wheat bran—Distribution and magnitude of the poultry and egg industry—The water content of creamery butter—The duration of the life of the tubercle bacillus in cheese—Feeding fat into milk: Recent experimental inquiry upon milk secretion, The physiology of milk secretion—Statistics of oleomargarine, oleo oil, and filled cheese, 1900–1902—The quarantine station at Athenia—Report on an enzootic among cattle caused by a bacillus of the Enteritidis group—Bovine tuberculosis and other animal diseases affecting the public health—Takosis in goats—Foot-and-mouth disease—Voges's description of mal de caderas, a South African trypanosomatic disease of domestic animals—Contagious diseases of animals in foreign countries—Value of animals sold and slaughtered on farms in 1899—Some agricultural experimental station work—Miscellaneous information—State sanitary officers having charge of live-stock matters—Imports and exports of animals and animal products—Live stock and the markets—Wool product of the United States, 1902—The tuberculin test of cattle in great Britain—Rules and regulations of the Bureau of Animal Industry issued in 1902.

This is a Congressional publication and but a limited number is assigned to the Department, which is quite insufficient for its needs. The principal distribution is made by Senators, Representatives, and Delegates in Congress.

German Meat Regulations. With Original Text. Pp. 51. (Bulletin No. 50, Bureau of Annual Industry.) Price 5 cents.

Olive Oil and Its Substitutes. By L. M. Tolman and L. S. Munson. Prepared under the direction of W. D. Bigelow, Chief of Food Laboratory. Pp. 64, pls. 2. (Bulletin No. 77, Bureau of Chemistry.) Price 5 cents.

Experiment Station Record. Vol. XV, No. 2. E. W. Allen, Ph. D., Editor. Pp. viii, 105–208. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers) beginning with Volume X, at \$1, payable in advance.

The Culture of the Central American Rubber Tree. By O. F. Cook, Botanist in Charge of Investigations in Tropical Agriculture. Botanical Investigations and Experiments. Pp. 86, pls. 18. (Bulletin No. 49, Bureau of Plant Industry.) Price 25 cents.

Crop Reporter. Vol. 5, No. 6. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 41-48.

A three-column quarto publication devoted to agricultural topics.

A Form of Hog Cholera not Caused by the Hog-Cholera Bacillus. By E. A. De Schweinitz, Chief of Biochemic Division, and M. Dorset, Assistant Chief of Biochemic Division. Pp. 4. (Circular No. 41, Bureau of Animal Industry.)

The Peach-Tree Borer. (*Sannina exitiosa* Say.) By C. L. Marlatt, Entomologist in Charge of Experimental Field Work. Pp. 6, fig. 1. (Circular No. 54, Division of Entomology.)

A Few Good Books and Bulletins on Nature Study, School Gardening, and Elementary Agriculture for Common Schools. By D. J. Crosby, Office of Experiment Stations. Pp. 4. (Circular No. 52, Office of Experiment Stations.)

List of Bulletins and Circulars issued by the U. S. Department of Agriculture and Available for Free Distribution. Corrected to September 15, 1903. Pp. 31. (No. 247, Division of Publications.—Ninth edition.)

Monthly List of Publications. September, 1903. Pp. 4. (No. 472, Division of Publications.)

#### REPRINTS.

Bulletin No. 44, Office of Experiment Stations.—Report of Preliminary Investigations on the Metabolism of Nitrogen and Carbon in the Human Organism, with a Respiration Calorimeter of Special Construction. Price 5 cents.

Bulletin No. 68, Office of Experiment Stations.—A Description of Some Chinese Vegetable Food Materials and Their Nutritive and Economic Value. Price 10 cents.

Bulletin No. 121, Office of Experiment Stations.—Experiments on the Metabolism of Nitrogen, Sulphur, and Phosphorus in the Human Organism. Price 5 cents.

Experiment Station Record Vol. XV, No. 1. Price 10 cents.

Bulletin No. 36, Bureau of Plant Industry.—The "Bluing," and the "Red Rot" of the Western Yellow Pine, with Special Reference to the Black Hills Forest Reserve. Price 30 cents.

Bulletin No. 26, Office of Public Road Inquiries.—Proceedings of the National Good Roads Convention, Held at St. Louis, Mo., April 27 to 29, 1903. Price 5 cents.

Circular No. 18, second series, Division of Entomology.—The Mexican Cotton-Boll Weevil.

Circular No. 28, second series, Division of Entomology.—The Box-Elder Plant-Bug.

Circular No. 37, revised edition, Division of Entomology.—The Use of Hydrocyanic Acid Gas for Fumigating Greenhouses and Cold Frames.

Circular No. 46, revised, Office of Experiment Stations.—The Functions and Uses of Food.

Circular No. 48, second series, Division of Entomology.—The House Centipede.

Circular No. 1, Division of Pomology.—Nut Culture.



Circular No. 3, Division of Pomology.—Notes on Peach Culture.

Circular No. 8, revised edition, Bureau of Soils.—Reclamation of Salt Marsh Lands.

Circular No. 10, Bureau of Soils.—The Use of Alkaline and Saline Waters for Irrigation.

Bacteria and the Nitrogen Problem. (Reprint from Yearbook of Department of Agriculture for 1902.)

Foot-and-Mouth Disease. (Reprint from Nineteenth Annual Report of the Bureau of Animal Industry, 1902.)

#### REPRINTS FROM FIELD OPERATIONS BUREAU OF SOILS, 1902.

Soil Survey of the Abbeville Area, South Carolina.

Soil Survey of the Trenton Area, New Jersey.

Soil Survey of the Columbus Area, Ohio.

Soil Survey of St. Clair County, Illinois.

Soil Survey of the Janesville Area, Wisconsin.

Soil Survey of Clinton County, Illinois.

Soil Survey of the Dubuque Area, Iowa.

Soil Survey of the Toledo Area, Ohio.

Soil Survey of Tazewell County, Illinois.

Soil Survey of Posey County, Indiana.

Soil Survey of Union County, Kentucky.

Soil Survey of the Grand Forks Area, North Dakota.

Soil Survey of the Lower Arkansas Valley, Colorado.

#### FARMERS' BULLETINS.

Horseshoeing. By John W. Adams, A. B., V. M. D., Professor of Surgery and Lecturer on Shoeing, Veterinary Department, University of Pennsylvania. Pp. 31, figs. 18. (Farmers' Bulletin No. 179.)

A discussion of horseshoeing intended to give the intelligent horse owner sufficient information, based on experience and upon the anatomy and physiology of the foot and leg, to enable him to avoid the more serious consequences of improper shoeing.

Game Laws for 1903. A Summary of the Provisions Relating to Seasons, Shipment, Sale and Licenses. By T. S. Palmer, Henry Oldys, and R. W. Williams, jr., Assistants, Biological Survey. Pp. 56. (Farmers' Bulletin No. 180.)

A brief presentation of the most important regulations concerning shipment and sale, especially those governing interstate commerce.

#### REPRINTS.

No. 95.—Good Roads for Farmers.

No. 106.—Breeds of Dairy Cattle.

No. 113.—The Apple and How to Grow It.

No. 128.—Eggs and Their Uses as Food.

No. 132.—The Principal Insect Enemies of Growing Wheat.

No. 152.—Scabies in Cattle.

No. 159.—Scab in Sheep.

No. 162.—Experiment Station Work—XXI.

No. 164.—Rape as a Forage Crop.

No. 166.—Cheese Making on the Farm.

No. 167.—Cassava.

No. 168.—Pearl Millet.

No. 170.—Principles of Horse Feeding.

No. 172.—Scale Insects and Mites on Citrus Trees.

No. 173.—A Primer of Forestry.

No. 175.—Home Manufacture and Use of Unfermented Grape Juice.

No. 176.—Cranberry Culture.

No. 177.—Squab Raising.

#### PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of that Bureau.]

#### Charts of the Weather Bureau—

Climate and Crop Bulletin (series of 1903), reporting temperature and rainfall with reference to their effect on crops. (No. 29 for the month of October, 1903.)

Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

Approved:

WILLIS L. MOORE,

*Acting Secretary of Agriculture.*

GEO. WM. HILL,  
*Editor and Chief.*



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P96M  
This circular will be sent regularly to all who apply for it.

No. 477.

# United States Department of Agriculture, DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *November 30, 1903.*

## MONTHLY LIST OF PUBLICATIONS.

[NOVEMBER, 1903.]

NOTE.—To obtain those publications, to which a Price is affixed, application must be made to the Superintendent of Documents, Union Building, Washington, D. C., to whom all remittances must be directed, except for Weather Bureau publications, for which payment may be made to the Chief of the Bureau. Stamps and personal checks will not be accepted.

Publications for free distribution may be obtained on application to the Secretary of Agriculture, Washington, D. C. Free publications are not distributed by the Superintendent of Documents.

The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

### NEW PUBLICATIONS.

Special Report on Diseases of the Horse. By Drs. Pearson, Michener, Law, Harbaugh, Trumbower, Liautard, Holcombe, Huidekoper, Stiles, and Adams. Pp. 600, pls. 41, figs. 18. (Bureau of Animal Industry, revised edition.) Price 65 cents.

CONTENTS: The examination of a sick horse—Methods of administering medicines—Diseases of the digestive organs—Diseases of the urinary organs—Diseases of the respiratory organs—Disease of the generative organs—Diseases of the nervous system—Diseases of the heart, blood vessels, and lymphatics—Diseases of the eye—Lameness—Diseases of the fetlock, ankle, and foot—Diseases of the skin—Wounds and their treatment—General diseases—Surra—Shoeing.

This is a Congressional publication and the allotment to the Department is so small that it will have none for general distribution. Persons desiring copies of the report should apply to their Senators, Representatives, or Delegates in Congress.

The Influence of Environment Upon the Composition of the Sugar Beet, 1902, Including a Study of Irrigated Sections. By Harvey W. Wiley, Chief of Bureau, In Collaboration with the Weather Bureau and the Agricultural Experiment Stations of California, Colorado, Indiana, Kentucky, Michigan, New Mexico, New York, Utah, Virginia, and Wisconsin. Pp. 50, figs. 5. (Bulletin No. 78, Bureau of Chemistry.) Price 5 cents.

The Testing of Road Materials, Including the Methods Used and the Results Obtained in the Road Material Laboratory, In Collaboration with the Office of Public Road Inquiries. By Logan Waller Page, Chief, Road Material Laboratory, with the Cooperation of Allerton S. Cushman, Chemist, Road Material Laboratory. Pp. 77, pls. 5, figs. 10. (Bulletin No. 79, Bureau of Chemistry.) Price 10 cents.

The Codling Moth. Prepared under the direction of the Entomologist by C. B. Simpson, Special Field Agent. Pp. 105, pls. 16, figs. 8. (Bulletin No. 41, Division of Entomology.) Price 15 cents.

Soil Survey from Arecibo to Ponce, Porto Rico. By Clarence W. Dorsey, Louis Mesmer, and Thomas A. Caine, Assistants in the Bureau of Soils, U. S. Department of Agriculture. (Reprinted from Report of Field Operations of the Bureau of Soils, 1902.) Pp. 53, pls. 4, fig. 1, map 1. (Bulletin No. 3, Porto Rico Agricultural Experiment Station.) Price 10 cents.

Experiment Station Record. Vol. XV, No. 3. E. W. Allen, Ph. D., Editor. Pp. x, 209-316. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers) beginning with Volume X, at \$1, payable in advance.

Agricultural Imports of Germany, 1897-1901. By Frank H. Hitchcock. Pp. 323. (Bulletin No. 30, Division of Foreign Markets.) Price 20 cents.

Accessions to the Department Library. July-September, 1903. Pp. 45. (Library Bulletin No. 48.) Price 5 cents.

Crop Reporter. Vol. 5, No. 7. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 49-56.

A three-column quarto publication devoted to agricultural topics.

Information Concerning Common Goats. By George Fayette Thompson, Editor of Bureau. Pp. 14. (Circular No. 42, Bureau of Animal Industry.)

Monthly List of Publications. October, 1903. Pp. 4. (No. 473, Division of Publications.)

#### REPRINTS.

Bulletin No. 17, Division of Biological Survey.—Birds of a Maryland Farm. A Local Study of Economic Ornithology. Price 15 cents.

Bulletin No. 16, Division of Botany, revised edition.—American Ginseng: Its History, Protection, and Cultivation. Price 5 cents.

Bulletin No. 67, Office of Experiment Stations.—Studies on Bread and Bread Making. Price 10 cents.

Bulletin No. 49, Bureau of Plant Industry.—The Culture of the Central American Rubber Tree. Price 25 cents.

Bulletin No. 22, Bureau of Soils.—The Chemistry of the Soil as Related to Crop Production. Price 5 cents.

Circular No. 23, second revision, Bureau of Animal Industry.—Directions for the Use of Blackleg Vaccine.

Circular No. 29.—Biological Survey. Protection and Importation of Birds under Act of Congress Approved May 25, 1900.

Circular No. 38, revised edition, Division of Entomology.—The Squash-Vine Borer.

Circular No. 52, Office of Experiment Stations, revised edition.—A Few Good Books and Bulletins on Nature Study, School Gardening, and Elementary Agriculture for Common Schools.

Circular No. 53, Division of Entomology.—The Yellow-Winged Locust.

Circular No. 1, Division of Publications, revised edition.—Organization of Department of Agriculture, 1903-04.

Market Milk: A Plan for Its Improvement. (Reprint from the Seventeenth Annual Report of the Bureau of Animal Industry, 1900.)

#### REPRINTS FROM FIELD OPERATIONS BUREAU OF SOILS, 1902.

Soil Survey of the Billings Area, Montana.

Soil Survey of the Lyons Area, New York.



Soil Survey of the Lewlston Area, Idaho.  
 Soil Survey of the Stuttgart Area, Kansas.  
 Soil Survey of Howell County, Missouri.  
 Soil Survey of the Mount Mitchell Area, North Carolina.  
 Soil Survey of Perry County, Alabama.  
 Soil Survey of the Smedes Area, Mississippi.  
 Soil Survey of the Walla Walla Area, Washington.  
 Soil Survey of the Albemarle Area, Virginia.

#### FARMERS' BULLETINS.

Pruning. By L. C. Corbett, Horticulturist, Bureau of Plant Industry. Pp. 39, figs. 25. (Farmers' Bulletin No. 181.)  
 Tells why pruning is practiced and how to do it.

#### REPRINTS.

No. 16.—Leguminous Plants for Green Manuring and For Feeding.  
 No. 22.—The Feeding of Farm Animals. Revised edition.  
 No. 28.—Weeds: And How to Kill Them. Revised edition.  
 No. 31.—Alfalfa, or Lucern.  
 No. 35.—Potato Culture.  
 No. 39.—Onion Culture.  
 No. 42.—Facts about Milk.  
 No. 45.—Some Insects Injurious to Stored Grain.  
 No. 51.—Standard Varieties of Chickens.  
 No. 74.—Milk as Food.  
 No. 76.—Tomato Growing.  
 No. 86.—Thirty Poisonous Plants of the United States.  
 No. 89.—Cowpeas.  
 No. 94.—The Vegetable Garden.  
 No. 95.—Good Roads for Farmers.  
 No. 98.—Suggestions to Southern Farmers.  
 No. 100.—Hog Raising in the South.  
 No. 109.—Farmers' Reading Courses.  
 No. 111.—The Farmers Interest in Good Seed.  
 No. 129.—Sweet Potatoes.  
 No. 137.—The Angora Goat.  
 No. 138.—Irrigation in Field and Garden.  
 No. 141.—Poultry Raising on the Farm.  
 No. 148.—Celery Culture.  
 No. 151.—Dairying in the South.  
 No. 158.—How to Build Small Irrigation Ditches.  
 No. 163.—Methods of Controlling the Boll Weevil.  
 No. 174.—Broom Corn.  
 No. 179.—Horseshoeing.

## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of that Bureau.]

**Measurement of Precipitation.** A Pamphlet of Instruction for the Measurement and Registration of Precipitation by Means of the Standard Instruments of the U. S. Weather Bureau. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau, by C. F. Marvin, Professor of Meteorology. Pp. 27, figs. 10. Circular E, Instrument Division. (W. B. No. 285.) Price 10 cents.

**Climatology of California.** Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau, by Alexander G. McAdie, Professor of Meteorology. Pp. 270, frontispiece, pls. 12, figs. 31. Bulletin L. (W. B. No. 292.) Price 50 cents.

**Weather Folk-Lore and Local Weather Signs.** Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. By Edward B. Garriott, Professor of Meteorology. Pp. 153, charts 21. Bulletin No. 33. (W. B. No. 294.) Price 25 cents.

**Monthly Weather Review.** Vol. XXXI, No. 8. August, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 365-406, figs. 8, charts 10. (W. B. No. 295.) Price 20 cents; \$2 per year.

**Monthly Weather Review.** Vol. XXXI, No. 9. September, 1903. Prepared under the direction of Willis L. Moore, Chief U. S. Weather Bureau. Pp. 407-448, charts 10. (W. B. No. 296.) Price 20 cents; \$2 per year.

**Charts of the Weather Bureau—**

Climate and Crop Bulletin (series of 1903), reporting temperature and rainfall with reference to their effect on crops. (No. 30 for the month of October, 1903.)

Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

PUBLICATION NOT AVAILABLE.

**New Building for Farm Mechanics at Iowa College of Agriculture and Mechanic Arts.** (From Experiment Station Record, Vol. XV, No. 3.)

Approved:

WILLIS L. MOORE,  
*Acting Secretary of Agriculture.*

GEO. WM. HILL,  
*Editor and Chief.*



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P96M

This circular will be sent regularly to all who apply for it.

No. 478.

United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *December 31, 1903.*

**MONTHLY LIST OF PUBLICATIONS.**

[DECEMBER, 1903.]

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The Department of Agriculture does not distribute nor control the distribution of publications of the State Agricultural Experiment Stations. Application for them should be made to the several stations in the different States.

NEW PUBLICATIONS.

Report of the Secretary of Agriculture. Preliminary. 1903. Pp. 106.

Report of the Secretary of Agriculture. 1903. Pp. 99. (Report No. 76.)

A Brief Account of the Principal Insect Enemies of the Sugar Beet.  
By F. H. Chittenden, Entomologist in Charge of Breeding Experiments. Pp. 71, figs. 65. (Bulletin No. 43, Division of Entomology.)  
Price 5 cents.

Experiments on the Metabolism of Matter and Energy in the Human Body, 1900–1902. By W. O. Atwater, Ph. D., and F. A. Benedict, Ph. D., with the cooperation of A. P. Bryant, M. S., R. D. Milner, Ph. B., and Paul Merrill, Ph. D. Pp. 357, frontispiece, figs. 14. (Bulletin No. 136, Office of Experiment Stations.) Price 20 cents.

Experiment Station Record. Vol. XV, No. 4. E. W. Allen, Ph. D., Editor. Pp. x, 317–420. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries; articles and editorials on topics of special interest in agricultural science by American and foreign experts; and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly, the Superintendent of Documents has decided to fix the price per volume (12 numbers) beginning with Volume X, at \$1, payable in advance.

The Apple in Cold Storage. By G. Harold Powell, Assistant Pomologist, in Charge of Field Investigations, and S. H. Fulton, Assistant in Pomology. Pomological Investigations. Pp. 66, pls. 6. (Bulletin No. 48, Bureau of Plant Industry.) Price 15 cents.

Result of investigations of the effect of cold storage on the apple and its influence on the apple industry.

Persian Gulf Dates and Their Introduction into America. By David G. Fairchild, Agricultural Explorer. Seed and Plant Introduction and Distribution. Pp. 32, pls. 4. (Bulletin No. 54, Bureau of Plant Industry.) Price 10 cents.



Field Operations of the Bureau of Soils, 1902. [Fourth Report.] By Milton Whitney, Chief. With Accompanying Papers by Assistants in Charge of Field Parties. Pp. 842, pls. 60, figs. 25, maps 44, in case. Price \$3.80.

This report gives a general review of the field work accomplished during the year, including progress and cost of the soil survey, cooperation with State organizations, and results of the survey. It is a Congressional publication.

Wages of Farm Labor in the United States. Results of Twelve Statistical Investigations, 1866-1902. By James H. Blodgett, A. M. Pp. 62. (Miscellaneous series—Bulletin No. 26, Bureau of Statistics.) Price 5 cents.

Crop Reporter. Vol. 5, No. 8. Published by the U. S. Department of Agriculture under the supervision of the Statistician. Pp. 57-60.

A three-column quarto publication devoted to agricultural statistics.

Supplement to Crop Reporter, Vol. 5, No. 8. Pp. 61-68.

Standards of Purity for Food Products. Pp. 13. (Circular No. 10, Office of the Secretary.)

Powder-Post Injury to Seasoned Wood Products. By A. D. Hopkins, In charge of Forest Insect Investigations. Pp. 5. (Circular No. 55, Division of Entomology.)

Report of the Committee on Rural Engineering of the Association of American Agricultural Colleges and Experiment Stations. By W. E. Stone, A. R. Whitson, Samuel Fortier, C. F. Curtiss, and Elwood Mead, Committee. Pp. 10. (Circular No. 53, Office of Experiment Stations.)

Report of Committee on Indexing Agricultural Literature. By A. C. True, T. F. Hunt, W. M. Hays, E. Davenport, Josephine A. Clark, Committee. Pp. 2. (Circular No. 54, Office of Experiment Stations.)

This is a report presented to the Association of American Agricultural Colleges and Experiment Stations at the convention held in Washington, D. C., November 17-19, 1903.

The Relation of the Natural Sciences to Agriculture in a Four-Year College Course. By A. C. True, H. H. Wing, T. F. Hunt, H. T. French, and J. F. Duggar, Committee. Pp. 15. (Circular No. 55, Office of Experiment Stations.)

Eighth report of the committee on methods of teaching agriculture of the Association of American Agricultural Colleges and Experiment Stations held at Washington, D. C., November 17-19, 1903.

Monthly List of Publications. November, 1903. Pp. 4. (No. 477, Division of Publications.)

#### REPRINTS.

Bulletin No. 45, Bureau of Animal Industry.—Takosis, A Contagious Disease of Goats. A Preliminary Report on Its Nature, Cause, and Prevention. Price 10 cents.

Bulletin No. 135, Office of Experiment Stations.—Legislation Relating to Farmers' Institutes in the United States and the Province of Ontario Canada. Price 5 cents.

Bulletin No. 7, Forestry Division.—Forest Influences. Price 15 cents.

Bulletin No. 5, Division of Vegetable Pathology, second edition. The Pollination of Pear Flowers. Price 15 cents.



Circular No. 39, Division of Biological Survey.—Regulations for the Protection of Game in Alaska.

Circular No. 52, Office of Experiment Stations.—A Few Good Books and Bulletins on Nature Study, School Gardening, and Elementary Agriculture for Common Schools.

Circular No. 23, Office of Road Inquiry.—Money Value of Good Roads to Farmers.

Circular No. 24, Office of Road Inquiry.—Highway Maintenance and Repairs.

Agricultural Periodicals in Department Library, 1902. Pp. 740-745. (Extract from Yearbook, Department of Agriculture, 1902.)

#### FROM ANNUAL REPORTS DEPARTMENT OF AGRICULTURE FOR 1903.

Report of the Chief of the Division of Accounts and Disbursements.

Report of the Office of Public Road Inquiries.

Report of the Acting Statistician.

Report of the Editor.

Report of the Chief of the Division of Foreign Markets.

Report of the Chief of the Weather Bureau.

Report of the Chief of the Bureau of Plant Industry.

Report of the Chief of the Bureau of Animal Industry.

Report of the Chemist.

Report of the Chief of the Bureau of Soils.

Report of the Entomologist.

Report of the Director of the Office of Experiment Stations.

Report of the Forester.

Report of the Appointment Clerk.

Report of the Librarian.

Report of the Chief of the Biological Survey.

#### REPRINTS FROM BULLETIN No. 133, OFFICE OF EXPERIMENT STATIONS.

Report of Irrigation Investigations for 1902. No. 1.—Irrigation in Mountain Water District, Salt Lake County, Utah. The Use of Water from the Wood Rivers, Idaho.

Report of Irrigation Investigations for 1902. No. 2.—Irrigation Investigations on Sand Creek, Albany County, Wyo. Irrigation in Washington. Irrigation Investigations in Montana, 1902. Irrigation Systems on Stony Creek, California. Irrigation in the Black Hills, South Dakota.

Report of Irrigation Investigations for 1902. No. 3.—Rice Irrigation in Louisiana and Texas. Third Progress Report on Silt Measurements. Irrigation Experiments at the Missouri Experiment Station. Irrigation in Wisconsin in 1902. Irrigation Investigations in New Jersey, 1902. The Use of Pumps for Irrigation in Hawaii.

#### REPRINTS FROM FIELD OPERATIONS, BUREAU OF SOILS, 1902.

Soil Survey of the Brazoria Area, Texas.

Soil Survey of the Hickory Area, North Carolina.

Soil Survey from Arecibo to Ponce, Porto Rico.

Soil Survey of the Wichita Area, Kansas.

Soil Survey of the Yuma Area, Arizona.

Crop Reporter, Vol. 1, No. 10.

Crop Reporter, Vol. 1, No. 11.



## FARMERS' BULLETINS.

Poultry as Food. By Helen W. Atwater. Prepared under the supervision of the Office of Experiment Stations, A. C. True, Director. Pp. 40. (Farmers' Bulletin No. 182.)

A useful summary of available information regarding the place of poultry in the diet.

## REPRINTS.

- No. 31.—Alfalfa, or Lucern.
- No. 44.—Commercial Fertilizers: Composition and Use.
- No. 57.—Butter Making on the Farm.
- No. 62.—Marketing Farm Produce.
- No. 63.—Care of Milk on the Farm.
- No. 71.—Some Essentials in Beef Production.
- No. 81.—Corn Culture in the South.
- No. 102.—Southern Forage Plants.
- No. 120.—The Principal Insects Affecting the Tobacco Plant.
- No. 121.—Beans, Peas, and Other Legumes as Food. (Revised edition.)
- No. 126.—Practical Suggestions for Farm Buildings.
- No. 128.—Eggs and Their Uses as Food. (Revised edition.)
- No. 134.—Tree Planting on Rural School Grounds.
- No. 136.—Earth Roads.
- No. 142.—Principles of Nutrition and Nutritive Value of Food. (Revised edition.)
- No. 147.—Winter Forage Crops for the South.
- No. 154.—The Home Fruit Garden: Preparation and Care.
- No. 161.—Practical Suggestions for Fruit Growers.
- No. 170.—Principles of Horse Feeding.
- No. 179.—Horseshoeing.

## PUBLICATIONS OF THE WEATHER BUREAU.

[For the publications of the Weather Bureau, requests and remittances should be directed to the Chief of that Bureau.]

## Charts of the Weather Bureau—

Climate and Crop Bulletin (series of 1903), reporting temperature and rainfall with reference to their effect on crops. (No. 31 for the month of November, 1903.)

Snow and Ice Bulletin for Tuesdays, December 8, 15, 22, and 29. (These bulletins are issued weekly during the winter season, based upon data from regular Weather Bureau stations, supplemented by reports from selected voluntary observers.)

Daily Weather Map, showing Weather conditions throughout the United States and giving forecasts of probable changes.

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*

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